February 7, 1973

Santa Barbara Community College District
Santa Barbara City College
721 Cliff Drive
Santa Barbara, California 93109

Attention Mr. Robert E. Eyre
Director, Facilities & Operations

Accident Prevention Report

AN ACCIDENT PREVENTION SURVEY OF YOUR ELECTRICAL WIRED IN ADMINISTRATION BUILDING

LOCATION: 721 Cliff Drive, Santa Barbara

MADE BY SAFETY ENGINEER: Harry L. Stier (213) 381-1291   DATE: 2-2-73

EXPLAINED TO: Mr. J.J. Bagley, Resident Inspector

COMPLIANCE DATE: 3-7-73

Requirements for the elimination of unsafe conditions are listed below. These unsafe conditions are in violation of lawful orders enforced by the Division of Industrial Safety.

The numbers following the requirements listed refer to sections of the California Administrative Code, Titia 8, Title 24 (T24) or Labor Code (L.C.)

BOILER ROOM

BOILER CONTROL ENCLOSURE

1. Disconnect switch for boiler controller enclosure does not disconnect all of ungrounded control conductors in the enclosure. Install a clear identification that all three control switches must be opened to interrupt all ungrounded conductors in this enclosure. T24 E386-3.

2. Bare live terminals inside of enclosure door even when two interlocking switches and three control switches are in the open position. Install an insulating barrier over the bare terminals on devices mounted on enclosure door. T24 E110-17.

BOILER


4. General Use Junction Box installed below MacDonald pressure switch which discharges steam and water on same. Relocate this enclosure or cover it with a raintight cover. T24 E300-30.

/SW

Safety Orders of the Division of Industrial Safety may be purchased from Office of Procurement, Documents Section
P.O. Box 20191, Sacramento, California 95821

UNIT SUB-OFF OF BOILER ROOM

6. Bare Live High Voltage and Low Voltage Parts in same room with switchboards and panelboards. Install a suitable barrier between the bare live parts and the low voltage distribution switchboards and panelboards. T24 E110-17, E710-10(b), E710-34(b).

7. Warning Sign is not installed on door of enclosure containing high voltage exposed parts. Install sign on door reading "WARNING - HIGH-VOLTAGE - KEEP OUT." T24 E710-34(c).

8. Pressure Relief Vents for interline-insulated transformers are installed in a poorly ventilated location with switchboard equipment in same room. Provide forced ventilation to the outside air or connect the vents to a flue which will carry the gases outside of the building. T24 E450-23.


GENERAL

10. Abandoned Conduits and Conductors with conductors dangling from enclosures. Remove conductors or install same in closed enclosures. T24 E320-1, E320-2.

NOTE: More work in progress so this does not constitute a complete electrical survey. On reinspection, a more complete survey will be made.

Wayne Kogli
Senior Safety Engineer
Electrical Section

cc Mr. Harvey Bagley, Resident Inspector
Santa Barbara Community College District
Santa Barbara City College
721 Cliff Drive
Santa Barbara, California 93109
April 11, 1973

Santa Barbara City College
721 Cliff Drive
Santa Barbara, CA  93103

Attn: Mr. Glen Coofer, Superintendent-President

AN ACCIDENT PREVENTION SURVEY OF YOUR Pressure Vessels listed below

Type of operation

LOCATION: No. 721 Cliff Drive, Santa Barbara

MADE BY SAFETY ENGINEER, Paul Cicilano    DATE: March 6-7-73, 1973
Mr. D. K. Sorensen, Administrative Instructor
EXPLAINED TO: Mr. W. L. B. Parker, H. T. BOILER

COMPLIANCE DATE: IMMEDIATELY

Requirements for the elimination of unsafe conditions are listed below. These unsafe conditions are in violation of lawful orders enforced by the Division of Industrial Safety.

The numbers following the requirements listed refer to sections of the California Administrative Code, Title 8, Title 7 (74) or Labor Code (LC).

LOCATION: G.C. 102

NO. 1B, 1612 PARKER H. T. BOILER

1. The existing safety valve is leaking continuously and it shall be repaired or replaced. 761.

NO. 12 IAABE ENG. BOILER

2. The operation of the existing safety valve is questionable. It shall be removed, cleaned and tested, replace if necessary. 763 (c).

LOCATION: P.E. 112

NO. 127592 IAABE ENG. BOILER

3. The existing safety valve is heavily corroded. It shall be repaired or replaced. Also installed on hot water side of Boiler. 763 (c).

LOCATION: P.E. 121

4. Post valid permit for Air Tank. 461.

5. Relocate Air Compressor and Tank Unit to prevent the unit from being constantly struck by door upon entering room, also unit shall be secured to floor. L.C. 6401.

Safety Orders of the Division of Industrial Safety may be purchased from Office of Procurement,
Documents Section, P.O. Box 20191, Sacramento, California 95820
6. There is a heavily corroded pipe nipple on the inlet of this heater. This condition shall be corrected to prevent leakage or flooding. L. C. 6401.

7. Post valid permit. 461.

Mr. Robert Avery, Maintenance Director, could not locate key to open control panel. Inspection could not be completed at this time. Boiler was disconnected electrically. H. Stier and W. Chapin present.

8. Boiler steam outlet is equipped with a pressure reducing regulator, and there is no stop valve between boiler and regulator. A stop valve shall be installed in steam outlet. 756.

9. City water pressure is used as a boiler feed. The boiler safety valve is set at 100 psi, the city water pressure is 65 psi. To continue operation the water pressure shall be not less than 6 percent above the pressure at which the safety valve is set to open. 765. (g).

10. This heater is operating without a safety valve—Install a safety valve. 762 (b), 753 (L) (2) (g).

11. This heater is operating without a safety valve—Install a safety valve. 762 (b), 753 (L) (2) (g).

12. Hose bib used as boiler drain valve. It shall be replaced with a properly rated drain valve. 756.

13. Hose bib used as boiler drain valve. It shall be replaced with a properly rated drain valve. 756.
Santa Barbara City College
Attention: Mr. Glen Gooder

LOCATION: ISG 3rd FLOOR

NO. 23949 ANSCO STERILIZER

14. Replace corroded pipe nipple in sterilizer feed line, also install stop valve between sterilizer and check valve. 755.

LOCATION: GYM MECH. ROOM (TWO BOILERS)

NO. 'S 22060 AND 22061 HOT WATER HEATING BOILERS

These two boilers are operating without pressure and temperature gages, also they are not equipped with drain valves.

NO. 22060:

15. Install pressure and temperature gages. 763 (a).
16. Install drain valve. 763 (a).

NO. 22061:

17. Install pressure and temperature gages. 763 (a).
18. Install drain valve. 763 (a).

NO. AIR TANK N. B. 163739


/dc

C. Weisman
Senior Safety Engineer

cc: Mr. R. Neilson, Fire Marshal
Santa Barbara Fire Department
121 West Carrillo Street
Santa Barbara, CA 93101

Mr. G. Firestone, Mayor
Santa Barbara City Mayor's Office
City Hall
Santa Barbara, CA 93101

Mr. S. Frank
President Board of College Trustees
Santa Barbara City College
721 Cliff Drive
Santa Barbara, CA 93103
205. **Ungrounded Electrical Equipment** such as:

(a) Safe light fixtures  
(b) Brass-shell sockets  
(c) 18 timers and enlargers  
(d) Color filters  
(e) Refrigerators


207. Open Exposed Conductors to receptacle for drive motor on Simplex Photo Dryer. Install conductors in approved raceways and enclosures. T24 E320-1, E320-2, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

208. **Circuit Breakers** controlling electrical discharge lighting fixtures are not correctly identified and are not arranged to be locked in the "OFF" position. Correctly and permanently identify the circuit breakers and install means to lock the breakers in the "OFF" position unless the circuit breakers are within sight of fixtures. T24 E410-77.

cc Mr. Bill Chapin  
Division of Industrial Safety  
Santa Barbara, California 93101  
411 East Canon Perdido

Wayne E. Kogi  
Senior Safety Engineer  
Electrical Section
BACK STAGE BUILDING A
Continued

Replace all cord wiring with listed conductors in grounded metal raceways or enclosures except the necessary length of cords from patch board to enclosures, and from receptacle outlets on grids to the clamp on stage lighting units. T24 E110-8, E400-1, E400-2, E400-3, E400-4, E300-1, E300-4, E300-5, E300-9, E300-11, E300-12, E300-13, E300-14, E300-15.

200. Two-Wire Receptacles installed that supply electrical equipment that is required to be grounded. Replace those receptacles with listed receptacles of the grounding type. T24 E210-7, E210-21 (b).

201. Ungrounded Stage Lighting Fixtures some due to grounding conductors dis-connected from fixtures, others from poorly connected attachment plugs. Effectively ground all stage lighting units with separate grounding conductors and grounding type receptacles and attachment plugs. T24 E250-45, E250-59.

ROOF

202. Motor Running Protection is not installed to protect fan motor above stage corridor. Install listed overcurrent protection in series with ungrounded conductors supplying this motor. The ampere rating of the protective devices shall not exceed 125 percent of the full load current rating of the fan motor. T24 E430-31, E430-32.

THREE TRANE MODEL SAHA - 503 A AIR CONDITIONERS

203. Overcurrent Protection Too Large to protect

   (a) 1/3 horsepower condensor fans
   (b) 3/4 horsepower condensor fan
   (c) Duct heater

Install listed overcurrent devices in series with each ungrounded conductor supplying the above components. The ampere rating of the devices for motors shall not exceed 250 percent of the full load current ratings of the motors and for the heater not over 125 percent of ampere load of the appliance. T24 E250-5, E422-27, E430-51, E430-52, E430-53.

TRANE - MODEL SAHA - 503 A

204. Overcurrent Protection Too Large to protect

   (a) 2.7 ampere evaporator fan
   (b) 20. ampere condensor fan
   (c) Duct heater

Install listed overcurrent devices in series with each ungrounded conductor supplying the above components. The ampere rating of the devices for motors shall not exceed 250 percent of the full load current ratings of the motors and for the heater not over 125 percent of ampere load of the appliance. T24 E250-5, E422-27, E430-51, E430-52, E430-53.
195. **Unidentified Circuit Breakers** in panelboard. Permanently identify all switches and circuit breakers to clearly indicate the electrical equipment they control. T24 E110-22, E300-15.

208 N

196. **Ungrounded Electrical Equipment** such as:

(a) Six sewing machines
(b) Portable fans
(c) Vacuum cleaner


197. **Cord Wiring** installed such as:

(a) Spliced zip cord to receptacle outlets for sewing machines
(b) to fixed exhaust fan

Replace all cord wiring with listed conductors installed in approved raceways and enclosures. Portable equipment may be cord connected if properly installed, receptacle outlets are located adjacent to the portable equipment. T24 E110-8, E400-1, E400-2, E400-3, E400-4, E400-5, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

**BACK STAGE BUILDING A**

198. **Open Exposed Conductors** and bare live parts where fixtures hanging out of outlets and parts of fixture broken off. Replace damaged fixtures and install all fixtures on lighting outlets or install blank cover on outlets. T24 E110-17, E300-29, E320-1, E320-2.

199. **Cord Wiring** installed such as:

(a) Long cord wiring up wall from dimmers through wall to light fixtures on grids
(b) Across grids to stage lighting fixtures
(c) From grids across attic about sixty feet (60') to dimmers in projection room
189. Cord Wiring installed to ungrounded lighting fixtures installed in
business study carrels. Replace this cord wiring with listed conductors
installed in continuous grounded metal raceways and outlet boxes to supply and
ground these lighting fixtures. T24 E110-8, E400-1, E400-2, E400-3, E400-4,
E400-5, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14,
E250-42.

CORRIDOR NEAR A - 200

190. Bare Live Terminals exposed where cover is not installed on switch outlet
for display cabinet. Install and maintain covers on all wiring enclosures. T24
E110-17, E300-29.

A - 205

191. Work Space Restricted in front of panelboard. Provide and maintain a
clear working space at least thirty inches (30") deep in front of all panelboards
and switches. T24 E110-16.

CORRIDOR A

192. Circuit Breakers controlling electrical discharge lighting fixtures are
not correctly identified and are not arranged to be locked in the "OFF"
position. Correctly and permanently identify the circuit breakers and install
means to lock the breakers in the "OFF" position unless the circuit breakers
are within sight of fixtures. T24 E410-77.

A - 201

193. Covers are not installed on outlet boxes. Install and maintain covers on
all wiring enclosures. T24 E110-17, E300-29.

A - 208 PROJECTION ROOM

194. Cord Wiring installed such as:

(a) Across room and floor to Luxtrol Light Control Unit
(b) Through hole in concrete wall and across T bar ceiling in attic
to stage
(c) To receptacle outlet for light on Luxtrol Light Control Unit
(d) Across floor to various equipment

Replace cord wiring with listed conductors installed in approved raceways and
enclosures. Portable equipment may be cord connected if properly installed,
receptacle outlets are located adjacent to the portable equipment. T24
E110-8, E400-1, E400-2, E400-3, E400-4, E400-5, E300-1, E300-4, E300-9, E300-10,
E300-11, E300-12, E300-13, E300-14, E300-15.

181. Covers are not installed on switch outlets. Install and maintain covers and plates on all wiring enclosures. T24 E110-17, E300-29.

A - 116

182. Work Space Restricted in front of panelboard. Provide and maintain a clear work space in front of panelboard. T24 E110-16.


184. Cord Wiring to receptacle at desk. Replace this cord wiring with listed conductors installed in approved raceways and enclosures. Portable equipment may be supplied by flexible cords if approved grounding type receptacles are installed adjacent to portable equipment. T24 E110-8, E400-1, E400-2, E400-3, E600-4, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

BLOWER ROOM ABOVE A - 155

185. Unsupported Electrical Metallic Tubing throughout this area. Support tubing within three feet (3') of fittings and enclosures and each ten feet (10') thereafter. T24 E350-4.

186. Circuit Breakers not lockable that control electrical discharge lighting fixtures at the front gate. Install means to lock these circuit breakers in the "OFF" position as they are not located within sight of the fixtures. T24 E410-77.

ROOM A - 207 ATTIC SPACE OVER CORRIDOR

187. Disconnect Switches for duct heaters are not located within sight of duct heaters and are not arranged to be locked in the "OFF" position. Install means to lock these circuit breakers in the "OFF" position. T24 E422-21 (c).

188. Open Exposed Conductors installed down wall to fan controller near A 207 door, leaving the fan control enclosure and fan ungrounded. Install these conductors in continuous grounded metal raceways. T24 E110-8, E350-1, E350-2, E250-42, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

175. **Open Exposed Conductors** to brass-shell socket on lead type saw and to switch for the light fixture. Install all conductors in approved raceways and enclosures, and install the switch in an enclosure to prevent accidental contact with live parts. T24 E110-17, E320-1, E320-2, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

176. **Damaged Brass Shell-Socket** on Intertype machine. Replace this damaged brass-shell socket with one of an insulating type. T24 E210-21 (g)(h).

**DARK ROOM**

177. **Un grounded Electrical Equipment** such as:

(a) Surface metal raceways
(b) Lighting fixture in viewing table
(c) Dryer
(d) Safe light fixtures
(e) Brass-shell sockets


178. **Cord Wiring** installed such as:

(a) To receptacle outlet for dryer
(b) To light fixtures and receptacles for light fixtures

Replace all cord wiring with listed conductors installed in approved raceways and enclosures. Portable equipment may be supplied by flexible cord if approved grounding type receptacles are installed adjacent to portable equipment. T24 E110-8, E400-1, E400-2, E400-3, E400-4, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

179. **Extra Taps and Conductors** in fan controller enclosure to supply receptacle outlet. Remove the taps to the receptacle outlet. T24 E373-8.
(d) Improperly terminated, damaged flexible cord to light fixture on Linotype Model #14
(e) To motors, controllers, switches, etc., on Baumfolder
(f) To motors, switches, etc., on ITEK-Duplicator
(g) On various other machines in area

Replace all cord wiring with listed conductors installed in approved raceways and enclosures. Portable equipment may be supplied by flexible cord if approved grounding type receptacles are installed adjacent to portable equipment. T24 E110-8, E400-1, E400-2, E400-3, E400-4, E500-1, E300-4, E300-9, E300-10, E500-11, E300-12, E300-13, E300-14, E300-15.

171. Ungrounded Electrical Equipment such as:

(a) Sorter at AB, Dick offset printer
(b) Vacuum cleaner
(c) Lead type saw
(d) Brass-shell sockets on light fixtures
(e) Vico rubber plate machine
(f) Fan motors


172. Work Space Restricted in front of switches, controllers, panelboards and other electrical equipment such as:

(a) Controller for Diamond paper cutter by location of viewing table
(b) Circuit breaker panelboards by stored equipment
(c) Controller mounted under Baumfolder
(d) Auxiliary wiring gutter behind lead furnace

Provide and maintain a clear working space at least thirty inches (30"") deep and six feet three inches (6'3") high in front of all switches, controllers, and panelboards. Pull-boxes and gutters must have twenty-four inch (24"") clear space in front of them. T24 E110-16.

173. Unused Openings in wiring enclosures such as:

(a) Enclosure for circuit breaker on Linotype Model #14
(b) Controller and switch on Diamond paper cutter
(c) Junction boxes

Close all unused openings in wiring enclosures with substantial metal plugs or plates. T24 E370-8, E373-4.
164. **Motor Branch Circuits** are not installed to disconnect and protect each of the evaporator units on the roof. Install individual motor circuit switches or circuit breakers to protect the motors and conductors in these units. There are five of these units. T24 E430-51, E430-52, E430-53, E430-40, E240-5.

165. **Overcurrent Protection Too Large** to protect evaporation motors and fan motors mentioned in item No. 164. The Model Numbers are - RSA-63A and Model RSA-830. Install overcurrent devices in series with each ungrounded conductor supplying motors in the units. The listed overcurrent amperage rating shall not exceed 250 percent of the full load current rating of the motors. T24 E430-40, E430-51, E430-52, E430-53.

166. **Controllers Not Readily Accessible** on the evaporator units mentioned in item No. 164 & 165. Install fixed ladders to get from one portion of roof to the other to make these controllers readily accessible. T24 E110-16.

**ATTIC DISTRIBUTION CENTER**

167. **Unidentified Switches** such as:

(a) Controllers  
(b) Disconnect switches  
(c) Relays

Permanently identify all switching devices to clearly indicate all of the electrical equipment they control. T24 E110-22, E380-15.

168. **Bare Live Parts Exposed** where cover left off of controller for fan motor. Install and maintain a cover on this controller enclosure. T24 E110-17, E300-29, E384-18, E430-41, E430-75.

169. **Fluorescent Fixtures Not Properly Supported** throughout this building that are supported by T-bar ceilings. Support fixtures independently of ceiling with at least No. 9 iron wires at each corner of fixtures, or submit evidence that T-bar ceiling can support additional weight of four times the weight of the fixtures and install approved T-bar clips at each corner of the lighting fixtures to the main T-bar stringers, and with at least No. 12 iron wire to stringers at each corner of the fixtures. T24 E410-15, E410-16.

**PRINT SHOP**

170. **Cord wiring** installed such as:

(a) Spliced cord wiring to receptacle for ultra-cold refrigerator  
(b) To motor on A.B. Dick offset printer  
(c) Under rug from surface metal raceway to receptacle for stapler
156. Mercury Vapor Lighting Fixtures are not properly supported. The hooks are not turned enough to withstand an earthquake and the condulets or ends of conduit stems do not appear to be strong enough to support fixtures if fixtures shake. Install means to keep fixture eyes in the hooks and submit evidence that condulets are strong enough to support 4 times the weight of the fixtures. T24 E410-16.


158. Long Flexible Cord Wiring installed on wall to light fixture on mezzanine. Replace this cord wiring with listed conductors installed in approved raceways and enclosures to an outlet box adjacent to portable lamp. T24 E410-1, E400-2, E400-3, E400-4, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

BUILDING A ADMINISTRATION BUILDING

159. Circuit breakers controlling electrical discharge lighting fixtures are not correctly identified and are not arranged to be locked in the "OFF" position. Correctly and permanently identify the circuit breakers and install means to lock the breakers in the "OFF" position unless the circuit breakers are within sight of fixtures. T24 E410-77.

160. Disconnect Switches for duct heaters are not of the fused type so overcurrent protection is too large to protect conductors to heaters and heaters themselves. Install individual branch circuits to each duct heater. The ampere rating of the overcurrent devices in series with the ungrounded conductors shall not exceed the ampacity of the conductors or 125 percent of the heater rating. T24 E240-5, E210-23, E210-24.

161. Unsupported Electrical Metallic Tubing in attics to switches, heaters, fixtures, etc. Support all tubing within thirty-six inches (36") of fittings and enclosures and each ten feet (10'). T24 E350-4.

162. Duct Heaters are not all interlocked with air fans to insure passage of air over heater coils. Install interlocks that will de-energize heaters if air movement fails. T24 E422-56 (b).

ATTIC DISTRIBUTION CENTER & FAN AREA

163. Motor Running Protection is not installed to protect fan motor for administration offices. Install motor running protection devices in series with each ungrounded conductor to these unattended polyphase fan motors. The ampere rating of the protective devices shall not exceed 125 percent of the full load current rating of the motor protected. T24 E430-31, E430-32, E430-37.

151. **Spliced Cord Wiring** under rug to table lamp. Replace this cord wiring with listed conductors installed in an approved raceway to a properly wired grounded type receptacle adjacent to the lamp. T24 E400-1, E400-2, E400-3, E400-4, E400-5, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15.

152. **Unsupported Electrical Equipment** such as:

(a) Outlet Boxes
(b) Controller enclosure on DaWalt saw

Securely support all electrical enclosures and electrical metallic tubing to comply with the section numbers noted. T24 E110-12, E110-13, E350-4, E370-13.

153. **Work Space Restricted** in front of electrical equipment such as:

(a) Switch and controller for compressor
(b) Circuit breaker panelboard on the mezzanine

Relocate these items to provide a clear access twenty-four inches (24"") wide and six feet six inches (6'6") high to a clear working space at least thirty inches (30"") deep in front of same that is six feet three inches (6'3") high. T24 E110-16.

NOTE: If equipment can be moved to provide this work space and head room, it will not be necessary to relocate above items.


155. **Unsupported 1/2 Inch Electrical Metallic Tubing** to or from panelboard on mezzanine. Support this tubing within thirty-six inches (36"") of fittings and enclosures and each ten feet (10"") in any case. T24 E350-4.
PREPARATION ROOM THIRD FLOOR

Continued


146. Fifteen Ampere Receptacles installed on 30 ampere branch circuits for vacuum pumps and coolant pumps. Install 30 ampere receptacles on 30 ampere circuits and supply same with 30 ampere conductors. T24 E210-3, E210-21, E210-23.

ROOF L.S.G. BUILDING

147. Ungrounded Neutral Conductor derived from 70kW generator on the roof that supplies emergency system. Ground the neutral from this isolated system to the cold water piping system. T24 E250-5, E250-25, E250-51, E250-52, E250-81, E250-91, E250-92, E250-94.

OLD ADMINISTRATION BUILDING
THEATRE ART SHOP

148. Work Space Restricted in front of electrical equipment such as:

(a) Disconnect switch for band saw
(b) Circuit breaker panel board by stored equipment
(c) Access and work space restricted to and in front of switch and controller on mezzanine

Relocate these items to provide a clear access twenty-four inches (24"') wide and six feet six inches (6'6") high to a clear working space at least thirty inches (30") deep in front of same that is six feet three inches (6'3") high. T24 E110-16.

NOTE: If equipment can be moved to provide this work space and head room, it will not be necessary to relocate above items.


150. Ungrounded Electrical Equipment such as:

(a) Three portable fan motors
(b) Paint mixer motor
(c) DeWalt radial arm saw
April 9, 1973

Santa Barbara Community College
721 Cliff Drive
Santa Barbara, California 93109

Attention Dr. Glenn Gooden, Supt.-President

Accident Prevention Report

AN ACCIDENT PREVENTION SURVEY OF YOUR college

LOCATED at 721 Cliff Drive, Santa Barbara

MADE BY SAFETY ENGINEER William D. Chapin #345-87

EXPLAINED TO: Robert Ayre. Dir. Facilities

Requirements for the elimination of unsafe conditions are listed below. These unsafe conditions are in violation of lawful orders enforced by the Division of Industrial Safety.

The numbers following the requirements listed refer to sections of the California Administrative Code, Title 8, Title 24 (12) or Labor Code (12).

LIBRARY BUILDING

2nd FLOOR LANDINGS - MAIN STAIRWAY
2nd FLOOR LANDINGS - CABLES STAIRWAYS

1. The railings around the open sides of the stair landings are below the standard height. Raise the height of the top of the railing to the minimum standard height of forty-two inches (42") 3213.

ROOM 2212 STAND

2. Post an easily legible sign in the room over the spirit duplicator instructing persons using the duplicator to leave the door open for ventilation when using the machine. 5229.

PHYSICAL SCIENCE BUILDINGS

P.S. 205 - VACUUM PUMP - V-BELT AND PULLEY DRIVE

3. Completely enclose the V-belt and pulley drive. Openings in the guard shall not exceed one-half inch ("') if within four inches (4") of moving parts. 4070.

/jcf

Safety Orders of the Division of Industrial Safety may be purchased from Office of Procurement,
Documents Section, P.O. Box 20191, Sacramento, California 95820
4. Provide a suitable eye wash fountain in each room where corrosive materials are stored or handled. 5162.

P.S. 207 - STORAGE

5. Secure all shelving to each other rigidly or to the floor or wall for additional bracing. 5241.

6. It is apparently necessary to have on hand, at times, fairly large amounts of highly flammable liquids such as ethyl ether and carbon disulfide. When quantities of these materials in excess of one gallon are on hand they should be stored in a separate well ventilated building or room accessible to authorized persons only (not in janitor closet). 4169.

CUT-OFF LINES - PLUG BOARDS

7. Install suitable insulation over the plugs or the ends of the steam pipe lines adjacent to the lines. 3308.

P.S. 120 PHYSICS STORE ROOM - TABLE SAW, V-BELT AND PULLEY DRIVE
P.S. 120 PHYSICS STORE ROOM - DRILL PRESS, V-BELT AND PULLEY DRIVE

8. Completely enclose the V-belt and pulley drives. 4070.

P.S. 110 - DARK ROOM

9. Provide a suitable eye wash for persons handling corrosive materials. 4162.

P.S. 111 - GAS CYLINDERS

10. Secure all compressed gas cylinders to a suitable structure or hand truck constructed for that purpose. 4829.

CAMPUS BOOK STORE

LOADING DOCK

11. Install a standard stair railing on the open side of the stairway from the dock to the ground. A standard stair railing is thirty to thirty-four inches (30" to 34") high measured vertically above the nose of the stair tread. 3216.
12. Complete the enclosure of the V-belt and pulley drives. Openings in the guard shall not exceed one-half inch (1/2") if within four inches (4") of moving parts. 4070.

13. Install suitable covers or grills over the floor drains to eliminate the tripping hazard of the large hole. 3213.

14. Do not store flammable liquids or gases inside of refrigerators or freezers unless they are especially constructed and approved for that purpose (Explosion Proof). Either was found in refrigerators on 2nd and 3rd floors in preparation rooms. Title 24, E500-1, E517-1, E517-2, E517-3, E517-4, E517-5.

15. Completely enclose the V-belt and pulley drive so employees cannot contact the hazardous moving parts. 4070.

16. Guard the open cooling fan on top of the compressor enclosure. Openings in the guard material shall not exceed one-half inch (1/2") if within four inches (4") of the moving parts or two inch by two inch (2" x 2") if over four inches (4") away. 4002.

17. Align the blower and motor V-belt pulleys to eliminate the frequent breakage of V-belts and therefore the necessity of leaving the guard off or loose. Labor Code 6401.
CAMPUS CENTER BUILDING (Cont'd)

FOR WATER LINES

18. Secure the hot water lines so as to prevent vibration which may cause the lines to break. 3240.

REFRIGERATION AND AIR COMPRESSORS

19. Post easily legible signs to indicate that these machines are automatically controlled and may start at any time. 3343.

WALK-IN FREEZER AND FREEZER

20. Provide illumination inside the room either by constantly burning lights with no switch control, or by a light controlled by a switch to be located inside near the door and with a means provided to indicate its location in the dark. 3249, Title 24, EC300-31.

CARBON DIOXIDE CYLINDERS NEAR ABOVE WALK-IN BOXES

21. Secure the CO₂ cylinders to a suitable structure so they cannot fall or be knocked over. 4829.

ROOM CC 223

22. The cord to the telephone is stretched across a walkway to the desk. Make a provision to eliminate this tripping hazard and any similar ones. 3272, 5273.

STAFF DINING ROOM - FLOOR VENTS (REGISTER)

23. The louvers in these floor vents are bent or broken presenting a tripping hazard. Eliminate this tripping hazard.

PHYSICAL EDUCATION BUILDING

EQUIPMENT - LAUNDRY ROOM

LAUNDRY ROOM DOOR

24. Install a door stop to prevent the door from hitting the air compressor behind the door. Labor Code 6401.

CISSEL DRYER

25. Complete the enclosure of the V-belt and pulley drive. 4070.

MECHANICAL ROOM

BLOWERS (5)

26. Complete the enclosure of the V-belt and pulley drives. 4070.
EMERGENCY LIGHTING GENERATOR

27. Guard or insulate the exhaust system up to a height of seven feet (7') above the floor. 3308.

RELOCATABLE BUILDING

ACCESS TO MACHINERY ON ROOF

28. Provide safe access to the roof machinery area by means of a fixed ladder or stairway. 3270.

29. Install standard railings with midrails between the edge of the roof and any point where it is necessary to go within six feet (6') of the roof edge to service machinery, including the means of access to the roof. The railing shall extend to six feet (6') beyond the locations where employees must go or their perpendicular projections with the roof edge.

ADMINISTRATION BUILDING

AUTOMOTIVE SHOP

30. Post "AUTOMATIC OPERATION" signs at the compressor. 3520.

31. Arrange the hoist controls so that they will automatically return to the neutral or "off" position when released by the operator and cannot be left in the open position. 3544.

BENCH GRINDER

32. Keep the tool rests adjusted up to within one-eighth inch (1/8") of the grinding wheels. 3576.

WIRE WHEEL MOTOR

33. Guard the unused motor arbor against accidental contact. 4051.

SUPPLIES WAREHOUSE

ACCESS TO STORAGE MEZZANINE

34. Provide adequate safe access to the mezzanine storage area. Do not use the rolling stair platform as access means. 3270.
35. Install standard stair handrail on the stairway. 3216.

FIRE EXTINGUISHER

36. The fire extinguisher over the sink is hidden. Keep the fire extinguisher in an easily visible and accessible. Labor Code 6406.

PRINT SHOP

37. Completely enclose the V-belt and pulley drives. 4070.

TYPE METAL MODULON FURNACES (2)

38. Provide a suitable exhaust ventilation from the furnaces to the outside air. The vent flues shall discharge at or above the level of the top of the building wall.

39. One of the furnaces is in front of the fire hose, blocking immediate access to the hose in case of emergency. Move the furnace to a location where it will not block access to fire or safety equipment or electrical panels. Labor Code 6406, Title 24, El10-16.

BOILER ROOM

40. The openings in the guard around the V-belt and pulley drive to the blower are too large. Reduce the size of the openings to not over one-half inch (\(\frac{1}{2}\) inch). 3944, 4070.

VENTILATION BLOWERS - V-BELT AND PULLEY DRIVES

41. Complete the enclosure of the V-belt and pulley drives. 4070.

SWINGING DOORS IN CORRIDORS

42. Glass in the panels adjacent to the door push plates should be of safety glazing materials or plastic. 3242.
STAGE - WEST WING

43. Recharge the two fire extinguishers which have been discharged. Labor Code 6401, 6406.

44. Install a standard stair handrail on one side of the west entrance stairway. 3216.

45. Install a standard stair railing on the open side of the back stairway. 3216.

46. Install a standard stair handrail on the wall side of the back stairway. 3216.

STAIRS TO ROOF FROM TOWER ABOVE STAGE

48. Do not permit lamps or other fixtures or materials to be stored on the stair railings. 3216.

214AB - PHOTO LAB
"SIMPLEX PRINT ORDER"

49. Enclose the chain and sprocket drive. 40/5.

ACCESS TO WORKSPACE FROM A131

50. Provide additional climbing room on the climbing side of the access ladder. There shall be at least thirty inches (30") from the rungs to the nearest object back of the ladder and fifteen inches (15") clearance from the center line on both sides of the ladder.

TEMPORARY BUILDINGS

ACCESS RAMPS

51. The access ramps to many of these buildings have slopes greatly in excess of the allowable maximum of one foot in eight feet (1' in 8') for exits from buildings. In addition, some extend out into the pathways presenting a tripping hazard to persons walking there. Eliminate these unsafe conditions. This may be done by installing a landing outside each door with a stairway or ramp of the proper slope at right angles to the doorway. 3217, 3216.

NOTE: The electrical requirements contained in this report do not constitute a complete electrical inspection.

Grant S. Kingon
Senior Safety Engineer
Industrial Section
April 5, 1973

Santa Barbara Community College District
Santa Barbara City College
721 Cliff Drive
Santa Barbara, California 93109

Attention Dr. Donald Sorsabal,
Administrative Dean

Accident Prevention Report

AN ACCIDENT PREVENTION SURVEY OF YOUR electrical wiring on Campus of Santa Barbara City College

LOCATED at 721 Cliff Drive, Santa Barbara

MADE BY SAFETY ENGINEER Harry C. Stier DATE 3-23-73

EXPLAINED TO Mr. Robert E. Eyre, Dir. Fac. & Ope. COMPLIANCE DATE 5-7-73

Requirements for the elimination of unsafe conditions are listed below. These unsafe conditions are in violation of lawful orders enforced by the Division of Industrial Safety.

The numbers following the requirements listed refer to sections of the California Administrative Code, Title 8, Title 24 (T24) or Labor Code (LC).

This list of unsafe electrical conditions is a continuation from list sent on March 16, 1973.

CAMPUS CENTER
cc 102 MECHANICAL ROOM

84. Neutral Conductor Not Grounded to Water Piping System only to make electrodes. Bond the interior cold water piping system to the grounding electrodes with the same size conductor as the required grounding conductor. T24 E250-81 (a)(b), E250-94.

85. Underground Conduits Not Sealed where they enter the building from the underground distribution. Seal system. The end of the raceways entering the building from the underground distribution system with a sealing method adequate to prevent the entrance of moisture or gases into the building whether raceways are used or unused. T24 E230-32 (c).

86. Unidentified and Incorrectly Identified Switches and Circuit Breakers. Permanently and correctly identify all switches, controllers and circuit breakers to clearly indicate all of the electrical equipment they supply. T24 E110-22, E380-15.

/ere

Safety Orders of the Division of Industrial Safety may be purchased from Office of Procurement, Documents Section, P.O. Box 20191, Sacramento, California 95820
87. Circuit breakers controlling electrical discharge lighting fixtures are not within sight of fixtures and are not provided with means to lock them in the "OFF" position. Install means to lock each circuit breaker controlling these fixtures in the "OFF" position unless the fixtures are within fifty feet (50') and within sight of the breakers. T24 E410-77.

88. Cord wiring installed to three fixed remote refrigeration compressors. Replace this cord wiring with listed conductors installed in approved raceways. T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

89. Disconnect Not Within Sight of domestic water pump motor. Make circuit breaker lockable or install a switch within sight of this motor. T24 E430-86, E430-102.

90. Cord wiring installed such as:

(a) Draped across floor to receptacle outlet to supply seven carrels. Note cords damaged.
(b) To light outlets on desks along wall, cords are spliced to exposed conductors in some cases.
(c) To receptacle outlets in office to supply electric typewriters and lighting fixtures.
(d) Through covers of wiring gutters under desks, cords not even properly terminated.
(e) To cash register at check-out stands.

Replace all cord wiring with listed conductors installed in approved raceways. T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

91. Ungrounded Electrical Equipment such as:

(a) Lighting fixtures
(b) Electric typewriters
(c) Receptacle outlets

92. **Ungrounded Electrical Equipment such as:**

(a) Electric heaters


93. **Circuit Breakers Controlling Electrical Discharge Lighting Fixtures** are not within sight of fixtures and are not provided with means to lock them in the "OFF" position. Install means to lock each circuit breaker controlling these fixtures in the "OFF" position unless the fixtures are within fifty feet (50') and within sight of the breakers. T24 E410-77.

94. **Disconnect Not Within Sight** of domestic water pump motor. Make circuit breaker lockable or install a switch within sight of this motor. T24 E430-86, E430-102.

95. **Manual Toggle Not Externally Operable** on automatic time switch. Remove the manual toggle from this switch or make it externally operable to prevent accidental contact with bare live parts. T24 E110-17, E380-3.


97. **Bare Live Parts and Ungrounded Brass-Shell Socket** where reflector installed on socket. Replace this brass-shell socket with one of a molded composition type. T24 E410-37, E210-21 (k), E110-17.

**STORAGE ROOM BEHIND FOOD DISPENSERS**

98. **Unsupported Electrical Metallic Tubing** to receptacle outlets for dispenser units. Support all tubing within thirty-six inches (36") of fittings and enclosures. T24 E348-12.

100. **Long cord Wiring** to receptacle outlet for ungrounded bun warmer. Replace this cord wiring with listed conductors installed in grounded metal raceways to an approved grounding type receptacle outlet installed adjacent to the bun warmer. The flexible cord to same from this receptacle must have a separate grounding conductor and the plug must be of the grounding type. T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5, E250-45, E250-59.

**cc KITCHEN**

101. **Manual Toggle Not Externally Operable** on automatic time switch. Remove the manual toggle from this switch or make it externally operable to prevent accidental contact with bare live parts. T24 E110-17, E380-3.

102. **Circuit Breakers Controlling Electrical Discharge Lighting Fixtures** are not within sight of fixtures and are not provided with means to lock them in the "OFF" position. Install means to lock each circuit breaker controlling these fixtures in the "OFF" position unless the fixtures are within fifty feet (50') and within sight of the breakers. T24 E410-77.

103. **Covers** are not installed such as:

(a) On water solenoid for orange juice dispenser
(b) Lighting fixtures at stairway
(c) At pilot lamp for food elevator

Install and maintain covers on all wiring enclosures. T24 E110-17, E300-29.

104. **Work Space Restricted** in front of panelboard and controller mounted over the sink. Relocate this panelboard and controller to provide a clear working space at least thirty inches (30"") deep from the floor to a height of six feet three inches (6'3'') in front of same. T24 E110-16.

105. **Cord Wiring** installed such as:

(a) Through tables to receptacle outlet for coffee urns
(b) To receptacle outlet supplying menu sign
(c) To receptacle outlet for mixer

Replace all cord wiring with listed conductors installed in approved raceways. T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

106. **Covers** are not installed on junction boxes and outlets. Install and maintain covers on all wiring enclosures. T24 E300-29.

108. **Unsupported Electrical Metallic Tubing** to and from panelboard. Support all tubing within three feet (3') of all fittings and enclosures. T2: E348-12.

**CAFETERIA**

109. **Cord Wiring** installed such as:

   (a) Spliced cord to clock  
   (b) To receptacle for cash register  
   (c) To fluorescent fixtures in food dispensing case  
   (d) To receptacle outlet for menu sign

Replace all cord wiring with listed conductors installed in approved raceways. T2: E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

110. **Unsupported Flexible Metal Conduit** such as:

   (a) Disposal switch and disposal motor  
   (b) Switch for dishwasher

Support flexible conduit within twelve inches (12") of fittings and enclosures. T2: E350-4. No flexible conduit broken at disposal defeating continuity of ground.


**BOOK STORE**

112. **Circuit Breakers Controlling Electrical Discharge Lighting Fixtures** are not within sight of fixtures and are not provided with means to lock them in the "OFF" position. Install means to lock each circuit breaker controlling these fixtures in the "OFF" position unless the fixtures are within fifty feet (50') and within sight of the breakers. T2: E410-77.
113. Cord Wiring installed such as:

(a) Zip cord wiring fastened to wall to receptacle outlet for Monarch Labeler
(b) Spliced cord wiring to transformer for signal system

Replace this cord wiring with listed conductors installed in approved raceways. T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

114. Ungrounded Electrical Equipment such as:

(a) Monarch Labeler
(b) Fluorescent lamp
(c) Water cooler
(d) Signal transformer
(e) Vacuum cleaner


115. Controller Not Readily Accessible they are mounted too high. Relocate these controllers to point not over six feet three inches (6'3") from the ground to the contacts of the switching devices. T24 E430-91.

116. Disconnecting Means for Air Conditioners are not within sight of the controllers or motors. Install motor circuit switches or other properly rated disconnected switches within sight of each of these control enclosures. T24 E430-102, E430-86.

117. Live Bare Terminals on capacitors installed near valves for refrigerant piping. Install these terminals in approved enclosures. T24 E110-17, E110-8, E386-5.

118. Unidentified and Incorrectly Identified Switches and Circuit Breakers.
Permanently and correctly identify all switches, controllers and circuit breakers to clearly indicate all of the electrical equipment they supply. T24 E110-22, E380-15.
119. Open Exposed Conductors installed in the ventilating motors. Install these conductors in listed raceways or cables. T24 E110-8, E320-1, E320-2, E300-1, E300-4, E300-5, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E430-145 (b).

120. Work Space Restricted in front of panelboard by stored materials. Provide and maintain a clear working space at least thirty inches (30”) deep in front of all switches and panelboards. T24 E110-16.

MECHANICAL ROOM L.S.G. 114

121. Bare Live Terminals and Exposed Conductors in Honeywell Control Cabinet with pneumatic controls. Install conductors and terminals in approved raceways and enclosures. T24 E386-5.

122. Unidentified Neutral Conductors in Honeywell Control. Enclosure in item #121. Replace unidentified conductors used as grounded neutral conductors with conductors having an outer covering colored white. T24 E200-6 (a).

123. Work Space Restricted in front of Honeywell Controller by stored equipment. Provide and maintain a clear working space at least thirty inches (30”) deep in front of this controller. T24 E110-16.

L.S.G. ELECTRIC ROOM

124. Neutral Conductor Not Grounded to Water Piping System only to make electrodes. Bond the interior cold water piping system to the grounding electrodes with the same size conductor as the required grounding conductor. T24 E250-81 (a)(b), E250-94.

125. Underground Conduits Not Sealed where they enter the building from the underground distribution. Seal system. The end of the raceways entering the building from the underground distribution system with a sealing method adequate to prevent the entrance of moisture or gases into the building whether raceways are used or unused. T24 E230-32 (c).

126. Unsupported Electrical Metallic Tubing to and from panelboard. Support all tubing with three feet (3’) of all fittings and enclosures. T24 E348-12.
127. Cord Wiring installed such as:
   (a) To switch and motor on Star Diamond Saw
   (b) From switch to motor on Falker Cutoff Saw
   (c) To switches and motor on Highland Park Slab Saw
   (d) Spliced cord wiring to vacuum pumps and coolant pumps that are
       fixed in place

Replace all cord wiring with listed conductors installed in approved raceways.
T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14,
E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

128. Bare Live Prongs on Attachment Plugs due to backfeed on vacuum and coolant
       pumps. Reinstall this fixed equipment and arrange circuits so all energy to each
       unit is disconnected when disconnect is opened. T24 E110-17, E110-8.

129. Unsupported Armored Cable and Flexible Metal Conduit to or on Model 103
       cutoff saw. Support this cable and conduit within twelve inches (12") of

130. Cord Wiring installed to receptacles that supply drafting tables and
       light tables. Replace cord wiring with listed conductors installed in approved
       raceways to outlet boxes for listed grounding type receptacles. T24 E110-8,
       E400-1, E400-2, E400-3, E400-4, E400-5, E300-1, E300-4, E300-9, E300-10, E300-11,
       E300-12, E300-13, E300-14, E300-15, E210-21 (f).

131. Unsupported Electrical Metallic Tubing and Flexible Conduit. Support
       tubing within three feet (3') of enclosures and fittings and flexible conduit
       within twelve inches (12") of fittings and enclosures and each four and one-half
       feet (4 1/2') thereafter. T24 E348-12, E350-4.

132. Ungrounded Electrical Equipment such as:
   (a) Recirculating tank motors
   (b) Band saw motor
   (c) Drill press motor

Ground all exposed noncurrent-carrying metal parts of electrical equipment by
means of continuous grounded metal raceways, bonding conductors, or if portable
with flexible cords containing separate grounding conductors and with grounding
type receptacles and attachment plugs. T24 E250-42, E250-45, E250-51, E250-57,
133. **Unsupported Flexible Conduit** to lighting fixtures. Support flexible conduit within twelve inches \((12''\)) of fittings and enclosures and each four and one-half feet \((4\frac{1}{2}'')\) thereafter. T24 E350-4.

134. **Switch Not in Enclosure** that controls recirculating tank motor. Install this switch in an approved enclosure. T24 E380-3.

135. **Unsupported Flexible Conduit** to lighting fixtures. Support flexible conduit within twelve inches \((12''\)) of fittings and enclosures and each four and one-half feet \((4\frac{1}{2}'')\) thereafter. T24 E350-4.


**L.S.G. 210 MECHANICAL ROOM**

137. **Bare Live Terminals and Exposed Conductors** in Honeywell control cabinet with pneumatic controls. Install conductors and terminals in approved raceways and enclosures. T24 E386-5.

138. **Unidentified Neutral Conductors** in Honeywell Control. Enclosure in item #121. Replace unidentified conductors used as grounded neutral conductors with conductors having an outer covering colored white. T24 E200-6 (a).

139. **Unsupported Electrical Metallic Tubing and Flexible Metal Conduit** to 15 horsepower supply fan motor. Support this tubing within three feet \((3')\) of fittings and enclosures, and the flexible conduit within twelve inches \((12''\)) of fittings and enclosures. T24 E348-12, E350-4.

**L.S.G. 202**

140. **Cord Wiring** installed such as:

(a) To fixed switch enclosure for fluorescent fixtures on display cabinet

(b) To fixed fluorescent fixtures at terrariums in preparation room

Replace cord wiring with listed conductors installed in approved raceways. T24 E110-8, E300-1, E300-4, E300-9, E300-10, E300-11, E300-12, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.
141. **Ungrounded Electrical Equipment** such as:

(a) Fluorescent fixtures at terrariums
(b) Orthophat camera
(c) Barnstead autoclave
(d) Lighting fixture in dark room


142. **Ungrounded Electrical Equipment** such as:

(a) Brass-shell socket lighting fixtures
(b) Motor on Picker X-ray table


143. **Bare Live Terminals and Exposed Conductors** in Honeywell Control Cabinet with pneumatic controls. Install conductors and terminals in approved raceways and enclosures. T24 E350-5.

144. **Unsupported Electrical Metallic Tubing and Flexible Metal Conduit** to 15 horsepower supply fan motor. Support this tubing within three feet (3') of fittings and enclosures, and the flexible conduit within twelve inches (12") of fittings and enclosures. T24 E348-12, E350-4.

**PREPARATION ROOM THIRD FLOOR**

145. **Ungrounded Electrical Equipment** such as:

(a) 20 KW Amsco sterilizer
(b) General Electric refrigerator
(c) Frigidaire
(d) Serve yourself refrigerator
(e) Freezer
(f) Precision Scientific oven in 301
March 16, 1973

Santa Barbara Community College District
Santa Barbara City College
721 Cliff Drive
Santa Barbara, California 93109

Attention: Dr. D.K. Sorsabal — Administrative Dean
Business Services

Accident Prevention Report

AN ACCIDENT PREVENTION SURVEY OF YOUR ELECTRICAL WIRING ON CAMPUS

LOCATED AT 721 CLIFF DRIVE, SANTA BARBARA

MADE BY SAFETY ENGINEER
Harry E. Stier
DATE 3-9-73
Dir. Facilities

EXPLAINED TO
Mr. Robert E. Eyre, Operations
COMPLIANCE DATE 5-16-73

Requirements for the elimination of unsafe conditions are listed below. These unsafe conditions are in violation of lawful orders enforced by the Division of Industrial Safety.

The numbers following the requirements listed refer to sections of the California Administrative Code, Title 8, Title 24 (T24) or Labor Code (LC).

This list of electrical unsafe conditions are in addition to the list sent on Feb. 7, 1973. They delete the items corrected and add items surveyed since that date. It supersedes list sent on that date.

BOILER ROOM ADMINISTRATION BUILDING


UNIT SUB OFF OF BOILER ROOM

6. Bare Live High Voltage Parts are located in the same room with switchboards and panelboards that supply loads in boiler room and rest of the building. Install a suitable barrier between the high voltage and the low voltage distribution and switchboards. E110-17, E710-10(b), E710-34.

7. High Voltage Warning Sign is not installed on entrance to high voltage parts. Install a high voltage warning sign reading "WARNING — HIGH VOLTAGE — KEEP OUT". E710-34c.
8. Pressure Relief Vents and Ventilation to flue to carry gases outside of the building are missing. Install pressure relief vents connected to the flue or pressure relief vents with adequate ventilation to the outside air. E430-23.


PHYSICAL SCIENCE BUILDINGS

BOILER ROOM 101

10. Bare Live Terminals near toggle handle of automatic time switches. Remove these toggle handles from the switches, or install adequate insulating barrier between the operating toggle and the bare live parts. E500-2, E110-17.


12. Circuit Breakers that control electrical discharge lighting fixtures that are not within sight of same are not arranged to be lockable in the off position. Install means to lock these circuit breakers in the off position. E410-77.

P.S. 205 COMPRESSOR ROOM

13. Work Space Restricted in front of switches and controllers such as:
   a) externally operable switch for steam generator
   b) switch and controller for compressor. Relocate switches and controllers to provide a clear working space at least thirty inches (30"") deep in front of same. If the opposite surface is conductive, and if the voltage to ground exceeds one hundred fifty (150) volts the distance must be increased to forty-two (42"") inches deep. E110-16.


15. Unsupported Electrical Metallic Tubing to steam generator. Support all tubing within three feet (3') of fittings and enclosures and each ten feet (10'). E348-12.

P.S. 203 ELECTRIC ROOM UNIT SUB B1


18. Circuit Breakers that control electrical discharge lighting fixtures that are not within sight of same are not arranged to be lockable in the off position. Install means to lock these circuit breakers in the off position. E410-77.

19. Fan Motor Disconnects do not open all ungrounded control conductors in fan controller enclosures when in the off position. Rearrange control circuits so all ungrounded conductors in controllers are deenergized when disconnect is in the off position or install an identified control switch adjacent to the controller that will open all ungrounded control conductors. E430-103, E386-3.

NOTE: This is general in all mechanical rooms on the campus.

20. Cord Wiring installed as a wiring method such as:
   a) cord through hole in wall receptacle outlet for stereo amplifier.
   b) long cord wiring to receptacle outlet supplying electric typewriter and calculator.
   Replace all cord wiring with listed conductors installed in approved raceways, and enclosures to approved grounding type receptacle outlets adjacent to points that portable equipment is supplied. E110-8, E300-1, 4, 8, 9, 10, 11, 13, 14, 15, E400-1, 2, 3, 4, 5.

21. Work Space Restricted in front of dumbwaiter elevator disconnect switch and controller by bottle storage rack. Provide and maintain a clear working space at least thirty inches (30") deep and six feet three inches (6' 3") high in front of these enclosures. E110-16.

P.S. LECTURE HALL

22. Covers are not installed on all junction boxes above ceiling. Install and maintain covers on all outlet and junction boxes. E300-29.

P.S. 117 LABORATORY

23. Cord Wiring installed to switch outlet and motor on electrically operated screen. Replace this cord wiring with listed conductors installed in grounded metal raceways and enclosures. E110-8, E400-1, 2, 3, 4, 5, E300-1, 4, 8, 9, 10, 11, 13, 14, 15, E250-42, 45, 57, 59.
24. **Ungrounded Electrical Equipment** such as:
   
   *a)* Variacs and vacuum cleaners in 116.
   *b)* enlarger light fixture.
   *c)* exposure light fixtures.

   Ground all exposed noncurrent-carrying parts of electrical equipment by means of continuous grounded metal raceways, or if portable with grounding type receptacles and attachment plugs and flexible cords containing separate grounding conductors. E250-42, 45, 57, 59, 74, 91, 95.

---

**P.S. 121 Corridor**

25. **Circuit Breakers** that control electrical discharge lighting fixtures that are not within sight of said are not arranged to be lockable in the off position. Install means to lock these circuit breakers in the off position. E410-77.

26. **Low Voltage Conduits** installed in same panelboard and raceways as 120/208 volt system. Remove all conductors from low voltage class two system from these raceways and enclosures. E300-3, E725-16.

---

**P.S. 120 Storage**

27. **Cord Wiring** installed as a wiring method to:

   *a)* plug strips on separate benches.
   *b)* to receptacle outlets.

   Replace all cord wiring with listed conductors installed in approved raceways, and enclosures to approved grounding type receptacle outlets adjacent to points that portable equipment is supplied. E110-8, E300-1, 4, 8, 9, 10, 11, 13, 14, 15, E400-1, 2, 3, 4, 5.

28. **Ungrounded Electrical Equipment** such as:

   *a)* grinder motors.
   *b)* drill press motors and switches.
   *c)* lighting fixtures.

   Ground all exposed noncurrent-carrying parts of electrical equipment by means of continuous grounded metal raceways, or if portable with grounding type receptacles and at attachment plugs and flexible cords containing separate grounding conductors. E250-42, 45, 57, 59, 74, 91, 95.

29. **Unsupported Electrical Metallic Tubing and Flexible Conduit** to lighting fixtures. Securely support tubing within three feet (3') of connectors and enclosures and flexible conduit within twelve inches (12") of fittings and enclosures. E348-12, E350-4.
30. Ungrounded Electrical Equipment such as:
   (a) centrifuges
   (b) Precision centrifuge.


31. Bare live terminals near toggle handle of automatic time switches. Remove these toggle handles from the switches, or install adequate insulating barrier between the operating toggle and the bare live parts. T24 E380-3, E110-17.

32. Aluminum Conductors Terminated in Copper Lugs in time switches A and AB. Properly terminate these feeder conductors in Cypress lugs or lugs listed for use for aluminum conductors. T24 E110-14.

33. Electrical Metallic Tubing Not Properly Terminated in sprinkler controller leaving it ungrounded. Install a listed connector on ends of tubing and properly tighten same to insure continuity of ground and prevent abrasion of conductors. T24 E348-7, E348-8, E250-42.


35. Cord Wiring installed to receptacles and lighting outlets. Replace all cord wiring with listed conductors installed in approved raceways and enclosures to approved grounding type receptacle outlets adjacent to points that portable equipment is supplied. T24 E110-8, E300-1, E300-4, E300-8, E300-9, E300-10, E300-11, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.

36. Cord Wiring installed through floor to receptacle in cabinet. Replace all cord wiring with listed conductors installed in approved raceways and enclosures to approved grounding type receptacle outlets adjacent to points that portable equipment is supplied. T24 E110-8, E300-1, E300-4, E300-8, E300-9, E300-10, E300-11, E300-13, E300-14, E300-15, E400-1, E400-2, E400-3, E400-4, E400-5.
37. Circuit Breakers that control electrical discharge lighting fixtures not within sight of circuit breaker are not arranged to be lockable in the off position. Install means to lock these circuit breakers in the off position. T24 E410-77.

### MECHANICAL ROOM

38. Unidentified Switches and Controllers. Permanently identify all switches and controllers to clearly indicate the electrical equipment they control. T24 E110-22, E300-15.


40. Overcurrent Protection Too Large to protect conductors for furnace control. Install overcurrent devices in series with each ungrounded control circuit conductor having an ampere rating not exceeding the ampacity of the conductors. T24 E240-5, E240-15, E430-72.

### L-211 MECHANICAL

41. Circuit Breakers Controlling Motors are not within sight of motors:

(a) compressor  
(b) fans.

Install means to lock these circuit breakers in the off or open position. T24 E430-86.

42. Unidentified Switches and Controllers. Permanently identify all switches and controllers to clearly indicate the electrical equipment they control. T24 E110-22, E300-15.

### AUDIO-VISUAL ROOM

43. Cord Wiring installed such as:

(a) to receptacles for audio units.  
(b) to switch outlets  
(c) to wall light fixture  
(d) to fixed plug mold strips.

Replace all cord wiring with listed conductors installed in approved raceways and enclosures to approved grounding type receptacle outlets adjacent to points that portable equipment is supplied. T24 E110-8, E300-1, E300-4, E300-8, E300-9, E300-10, E300-11, E300-13, E300-14, E300-15, E400-1, E400-2, E500-4, E600-3, E400-5.
AUDIO VISUAL ROOM (continued)

44. Ungrounded Electrical Equipment such as:

(a) lighting fixture
(b) oven
(c) plug mold receptacle strips
(d) ditto machine.


PHYSICAL EDUCATION BUILDING P.E. 112

45. Domestic Water Pump Disconnects are not located within sight of the motors and are not arranged to be locked in the off position. Install disconnects within sight of these motors, or install means to lock the circuit breakers supplying them in the off position. T24 E430-86.


P.E. 113 ELECTRIC ROOM

47. Unidentified Switches and Circuit Breakers. Permanently identify all switches and circuit breakers to clearly indicate the electrical equipment they control. T24 E110-22, E380-15.

48. Water Entering High Voltage Fused Interrupter Enclosure and low voltage panelboards from underground pull boxes located on exterior campus. Provide adequate drains in these pull boxes and seal ends of raceways to prevent water entering enclosures. T24 E300-30, E3710-8.

49. Bare Live Parts Exposed where cover left off of panelboard to drain water. Comply with Item No. 48 and install dead front cover on this panelboard. T24 E110-17, E300-29, E384-18.

P.E. 301


51. Electrical Discharge Lighting Fixtures are mounted directly to low density fiberboard ceiling. Reinstall these fixtures with one and one-half inch (1 1/2") noncombustible spacing between the fixtures and this type of ceiling. T24 E410-74(b).
Santa Barbara Community College District
Santa Barbara City College

P.E. 301 (continued)

52. Ungrounded Electrical Equipment such as:

(a) Refrigerator
(b) Hot plate
(c) Craig Film Editor in R.E. 304.


53. Work Space Restricted in front of panel B.A. by refrigerator. Provide and maintain a clear working space at least thirty inches (30") deep in front of this panelboard. T24 E110-16.

P.E. 206 EQUIPMENT ROOM

54. Work Space Restricted in front of controller for washing machine. Relocate controller to provide a clear working space at least thirty inches (30") deep in front of same. T24 E110-16.

55. Electrical Discharge Lighting Fixtures are mounted directly to low density fiberboard ceiling. Reinstall these fixtures with one and one-half inch (1 1/2") noncombustible spacing between the fixtures and this type of ceiling. T24 E410-74(b).

56. Electrical Discharge Lighting Fixtures are mounted directly to low density fiberboard ceiling. Reinstall these fixtures with one and one-half inch (1 1/2") noncombustible spacing between the fixtures and this type of ceiling. T24 E410-74(b).

57. Nonmetallic Sheathed Cable used as an extension cord to supply portable ball pitching machine. Install hard usage flexible cord containing a separate grounding conductor to supply this portable machine. An approved receptacle of the grounding type must be installed at locations machine is used. T24 E400-1, E400-2, E400-3, E400-4, E336-c(9).


59. Fan Motor Disconnects do not open all ungrounded control conductors in fan controller enclosures when in the off position. Rearrange control circuits so all ungrounded conductors in controllers are de-energized when disconnect is in the off position or install an identified control switch adjacent to the controller that will open all ungrounded control conductors. T24 E430-103, E386-3. Note: This is general in all mechanical rooms on the campus.
GYMNASTIUM MECHANICAL ROOM (continued)

60. Flexible Metal Conduit For Ground Continuity on 480 volt system. Install a grounding conductor in each flexible conduit to insure continuity of ground to motors. T24 E430-145.

61. Cord Wiring installed to air dryer for compressor motor. Replace this cord wiring with listed conductors installed in approved raceway. T24 E400-1, E400-2, E400-3, E400-4, E110-8, E300-1, E300-4, E300-8, E400-9, E400-15, E400-14, E400-13, E400-11.

62. Circuit Breakers that disconnect domestic water pump motors are not within sight of motors. Install disconnects within sight of motors or install means to lock the circuit breakers in the off position. T24 E430-86.


GYMNASTIUM - GENERAL

64. Circuit Breakers that control electrical discharge lighting fixtures not within sight of circuit breaker are not arranged to be lockable in the off position. Install means to lock these circuit breakers in the off position. T24 E410-77.

65. Electrical Discharge Lighting Fixtures are mounted directly to low density fiberboard ceiling. Reinstall these fixtures with one and one-half inch (1 1/2") noncombustible spacing between the fixtures and this type of ceiling. T24 E410-74(b).

RELOCATABLE BUILDINGS

66. Oil Filled Cutouts used as building disconnects are not arranged to be locked in the off position. Install means to lock these switches in the off position. T24 E230-76.

67. Switches and Circuit Breakers are not identified. Permanently identify all switches and circuit breakers to correctly and clearly indicate the electrical equipment they supply. T24 E110-22, E380-15.

68. Disconnects and Controllers on roof for air conditioners are not readily accessible. Install suitable fixed ladders to these control enclosures or have a portable ladder at the site for safe access. T24 E110-16(c).

69. Safe Work Space are not provided at switches and controllers on roof when within six feet of edge of roof. Install substantial fence at edge of roof to provide safe working space. T24 E110-16.

70. Covers are not installed on:

   (a) exterior receptacle weatherproof outlets
   (b) fire alarm outlet
   (c) outlets at fence.

Install and maintain covers on all outlet boxes. T24 E300-29, E300-30.
RELOCATABLE BUILDINGS (continued)

71. Electrical Discharge Lighting Fixtures are mounted directly to low density fiberboard ceiling. Reinstall these fixtures with 1 1/2 inch noncombustible spacing between the fixtures and this type of ceiling. T24 E410-74(b).

FOOTBALL FIELD MAIN ELECTRICAL 120/208 VOLT SERVICE

72. A defective main service disconnect switch is pitted and will not fully close. Repair or replace this switch which could easily injure anyone operating or standing near same. T24 E110-12.


74. Insulating Bushings are not installed where conductors No. 4 or larger enter raceways throughout this distribution center. Install insulating bushings or the equivalent in each conduit where No. 4 or larger conductors enter same. T24 E373-6(b).

75. Service Neutral Conductor Overloaded from current coil enclosure to the neutral terminal in main service switch. Replace this neutral conductor with one having the same ampacity as the ungrounded conductors. T24 E310-1.

76. Extra taps and conductors are installed in the externally operable switches supplying loads to the various flood lights and buildings. Remove all but the single line and load conductors from these switches and make all taps in the auxiliary wiring gutter in an approved manner. Also, provide listed overcurrent devices in series with each ungrounded tap within ten feet of point of supply. T24 E373-8, E240-5.

77. Branch Circuit Panelboards are not protected to bus ratings. Install listed overcurrent devices in series with each ungrounded conductor supplying these panelboards. The ampere rating of the devices shall not exceed the bus ampere ratings of the panelboards. T24 E384-16.

78. Covers are not installed/gutter and junction boxes. Install and maintain covers on all wiring enclosures. T24 E300-29.


80. Damaged Contacts in field light disconnects. They are badly pitted. Replace these switches with ones in good repair. T24 E110-12. Note: It is a dangerous practice to pick up and open large loads like this with manual switch. A contactor of the required size is recommended.
FOOTBALL FIELD MAIN ELECTRICAL 120/208 VOLT SERVICE (continued)

81. Unused openings in various enclosures. Close all unused openings in wiring enclosures with substantial metal plugs or plates. T24 E370-8, E373-4.

TOP OF BLEACHERS

82. Ungrounded Externally Operable Weatherproof Switches and raceways supplied by overhead lines from football lighting service. Install a continuous grounding conductor of the proper size for spans from the distribution center to these raceways and securely connect conductors to raceways at each end of the overhead runs. T24 E250-42; E250-51; E250-52; E250-57; E250-95.

TEMPORARY BUILDINGS 1 TO 12

83. Electrical Discharge Lighting Fixtures are mounted directly to low density firberboard ceiling. Reinstall these fixtures with one and one-half inch (11/2") noncombustible spacing between the fixtures and this type of ceiling. T24 E410-74(b).

84. This does not constitute a complete electrical survey. On the week of March 19, 1973, the survey will be continued through remaining buildings and high-voltage distribution system.

Wayne E. Kogel
Senior Safety Engineer
Electrical Section

cc Bill Chapin
DIS, Santa Barbara