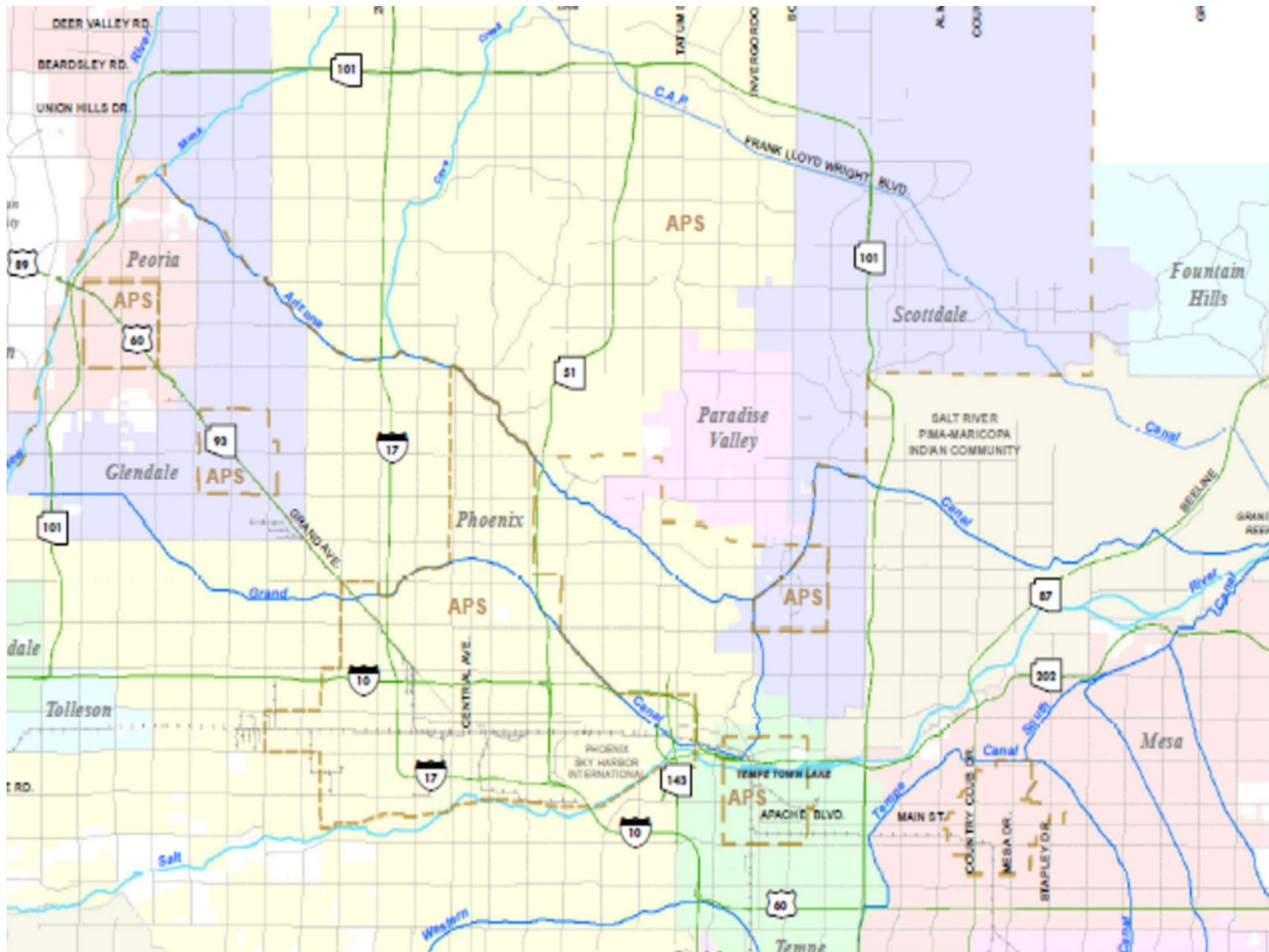


2019 UPSA Annual Meeting

Partnering in Public Safety





Arizona Public Service (APS)

Serves approximately 1.2 million electric customers

Covers over 37,000 square miles, serving 11 of the 15 counties throughout Arizona.

Operates and Maintains 39,000 miles of Overhead & Underground electric facilities including 500,000 energized equipment devices, to include 600 miles of overhead and underground fiber optic communication cables.

APS Public Safety Department

Randy Boles - Supervisor

Dave Shockley - Sr. Public Safety Consultant

Chuck Hayes - Sr. Public Safety Consultant

Salt River Project (SRP)

Not-for-profit water and energy company

Employees: 5,800

SRP is an umbrella name for two separate entities:

Salt River Project Agricultural Improvement (Water Users' Association)

- February 7, 1903
- Water service area: 375 sq. mi.
- Watershed: 13,000 sq. mi.

Power District

- 1936 was established
- 1,041,342 Approximately Customers
- 2,900 square miles service area
- Three counties, including Phoenix metropolitan area
- 2,400 miles of transmission lines (69-500kV)
- 20,000 miles of distribution lines (overhead & underground) (12-22kV)
- 1,800 miles of overhead and underground fiber optics

SRP Safety Services Department

- * 13 Employees in Safety Services
- * 1 Administrative Assistance
- * 1 Safety Records Specialist

SRP Public Safety Team

Four part-time public safety resources who are also Safety Specialists:

- * Ryan Balzer
- * Clint Bragg
- * Shephard Jackson
- * Leonard Rondeau

Public Safety's Rolls and Responsibilities

- * Educate third party contractors when working near overhead and underground power lines.
 - * On-site consultations
 - * Participate in job briefing
 - * Follow-up site visits
 - * Electrical presentations
- * Electrical Safety Workshop
 - * Annually
- * Educate First Responders

POWER LINE SAFETY MEETING



x63-029 10/13

WARNING:

Energized electrical power lines in the immediate vicinity of a construction site represent an extreme hazard from electrical shock.

To prevent encroachment/electrocution, do not operate any equipment closer than the minimum clearance distance requirements identified in the OSHA Crane and Derricks in Construction; Final Rule 29 CFR Part 1926.

1. Identify the work area.
2. Determine if any part of the equipment, load line or load, if operated up to the equipment's maximum working radius, **COULD** get closer than 20 feet from the power line (if the line is less than 350,000 volts) or 50 feet from the power line (if the line is more than 350,000 volts).
3. If any part of the equipment, load line or load, if operated up to the equipment's maximum working radius, **COULD** get closer to the power line than 20 feet or 50 feet, as applicable, then you must either:
 - a. Confirm with the utility company that the power line has been de-energized and visually grounded at the work site; or
 - b. **ENSURE** that **NO PART** of the equipment, load line or load gets closer than the required minimum approach distances by implementing the required encroachment prevention provisions.

Voltage information: Power line has been identified as _____ kilovolts

Date _____ Time _____

SRP employee _____ Phone number _____

Location of job site _____

Job contact _____ Phone number _____

Contractor _____ Phone number _____

The contractor has requested an outage. SRP will notify the contractor when the power line has been de-energized at the work site and the conductor has been visibly grounded. Grounding of the conductor does not eliminate all electrical hazards involved with working near energized conductors. The contractor is to ensure all safe work practices are followed in accordance with OSHA standards.

ATTENDEES:

_____	_____
<small>Print Name</small>	<small>Signature</small>
_____	_____
<small>Print Name</small>	<small>Signature</small>
_____	_____
<small>Print Name</small>	<small>Signature</small>

White: Safety Services Yellow: Contractor



Delivering more than power.™



Energized electrical power lines in the immediate vicinity of a construction job represent an extreme hazard from electrical shock.

To avoid serious injury or death, do not approach any closer than 10 feet of any such overhead power lines -- either in person or with equipment. Do not consider these lines to be insulated.

Before working in proximity to overhead or underground power lines, or if you have questions related to these power lines, call SRP at (602) 236-8117.

You have been warned specifically of the following:

Date _____ Approximate time _____ a.m. p.m.

SRP employee _____ PR number _____

Location of job site _____

Description of hazard _____

Person contacted on job site _____

Contractor's name _____

Contractor's address _____

Contractor's phone number _____

OSHA Cranes and Derricks Power Line Safety Requirements 29 CFR 1926, Subpart CC [1407-1411]

REQUIREMENTS THAT YOU MUST FOLLOW BEFORE OPERATING CRANES IN THE AREA OF POWER LINES

Step 1. Identify work area.

Step 2. Determine if any part of the equipment, load line or load, if operated up to the equipment's maximum working radius, COULD get closer than 20 feet from the power line (if the line is less than 350 kV) or 50 feet from the power line (if the line is over 350 kV).

Step 3. If any part of the equipment, load line or load, if operated up to the equipment's maximum working radius, COULD get closer to the power line than 20 feet or 50 feet, as applicable, then YOU MUST either:

Option 1: Confirm from APS that the power line has been de-energized and visually grounded at the worksite; or

Option 2: ENSURE that NO PART of the equipment, load line or load gets closer to the power line than 20 feet for lines up to 350 kV, or 50 feet for lines over 350 kV, by implementing the required Encroachment Prevention Precautions; or

Option 3: If the specific voltage of the line is clarified by APS, then you must ENSURE that NO PART of the equipment, load line or load gets closer to the power line than the Minimum Approach Distances in Table A of OSHA 1926.1408, by implementing the required Encroachment Prevention Precautions.

OSHA TABLE A MINIMUM APPROACH DISTANCES*

Power Line	Distance
Up to 50 kV	10 feet
Over 50 kV up to 200 kV	15 feet
Over 200 kV up to 350 kV	20 feet
Over 350 kV up to 500 kV	25 feet

*Used only after APS has Clarified Specific Voltage.

Required Encroachment Prevention Precautions—
See OSHA 1408(b)

You must do all of the following:

1. Conduct a planning meeting with the operator and the other workers who will be in the area of the equipment or load to review the location of the power line(s), and the steps that will be implemented to prevent encroachment into the minimum approach distance.
2. If tag lines are used, they must be non-conductive.
3. Erect and maintain an elevated warning line, barricade, or line of signs, in view of operator, at the required minimum approach distance (see detailed requirements in OSHA regulation).
4. Implement at least one of the following measures:
 - a. A proximity alarm set to give the operator sufficient warning to prevent encroachment into the minimum approach distance.
 - b. A dedicated spotter who is in continuous contact with the operator (see detailed requirements in OSHA regulation).
 - c. A device that automatically warns the operator when to stop movement (see detailed requirements in OSHA regulation).
 - d. A device that automatically limits range of movement, set to prevent encroachment into the minimum approach distance.
 - e. An insulating link/device (see detailed requirements in OSHA regulation).

POWER LINES PRESUMED ENERGIZED

You must assume that all power lines are energized unless APS confirms that the power line has been and continues to be de-energized and visibly grounded at the worksite.

TRAINING

You must train each operator and crew member assigned to work with the equipment (see detailed requirements in OSHA regulation).



WARNING/ALERTA



Date: _____ Time: _____ APS Representative: _____

Location: _____

City: _____

Contractor Name or Equipment _____

Mailing Address: _____



The wires you are working near are not insulated and could cause serious injury or death if accidentally contacted. **Ten (10) feet is the minimum clearance requirement that you must maintain from high voltage overhead powerlines of 50,000 volts or less. Lines with higher voltages require even greater distances.**

Cranes and derricks used in construction may require clearances greater than 10 feet and encroachment precautions.

Los alambres que usted está trabajando cerca no se aíslan y podrían causar lesión o muerte sería si esta entrados en contacto con accidentalmente. DIEZ (10) PIES SON EL REQUISITO DE LA SEPARACION MINIMA QUE UST DEBE MANTENER DE POWERLINES DE ARRIBA DE ALTO VOLTAJE DE 50,000 VOLTIOS O DE EMNOS. LAS LINEAS CON VOLTAJE MAS ALTOS REQUIEREN INCLUSIVO MAYORES DISTANCIAS.

LAS GRÚAS O LOS TORRES, CUANDO SE USEN EN UN SITIO DE CONSTRUCCIÓN, PUEDEN REQUERIR DISTANCIAS DE SEGURIDAD SUPERIORES A LOS 10 PIES (3 METROS) Y DEBEN TOMARSE PRECAUCIONES AL INVADIR LA ZONA DE SEGURIDAD.

Underground cables are insulated, but damage or undue stress may cause the insulation to fail and result in serious injury or death. **Do not touch the cables or handle them in any way, and do not leave them exposed overnight. State law requires that underground utilities be marked before any excavation begins. All digging within two (2) feet either side of the locate mark must be done by hand in a careful and prudent manner.**

Se aíslan los cables subterráneos, pero el daño o la tensión indebida pueden hacer el aislante fallar y el resultado en lesión o muerte sería. **NO TOQUE LOS CABLES NI MANEJELOS DE CUALQUIER MANERA, Y NO LOS DEJA EXPUESTOS DURANTE LA NOCHE. LA LEY DEL ESTADO REQUIERE QUE LOS UTILITARIOS SUBTERRÁNEOS ESTEN MARCADOS ANTES DE QUE CUALQUIER EXCAVACION COMIENCE. TODOS QUE CAVAN DENTRO DE 2 CUALQUIER CARA DE LA MARCA DEL LOCALIZAR SE DEBEN HACER A MANO DE UNA MANERA CUIDADOSA Y PRELENTE.**

If you have any questions concerning your safety in working near electrical facilities, please contact APS Public Safety Department, (602) 250-3418 in the Phoenix Metropolitan area. Outside the Metropolitan area, call your local APS office.

Si usted tiene cualesquiera preguntas referentes a su seguridad en el trabajo cerca de recursos eléctricos, entre en contacto con por favor APS, departamento publico de seguridad, (602) 250-3418 in el area metropolitana de Phoenix. Fuera del area metropolitana, llame su oficina local del APS.

X

Signature (Contractor/Equipment Owner Representative)

Title









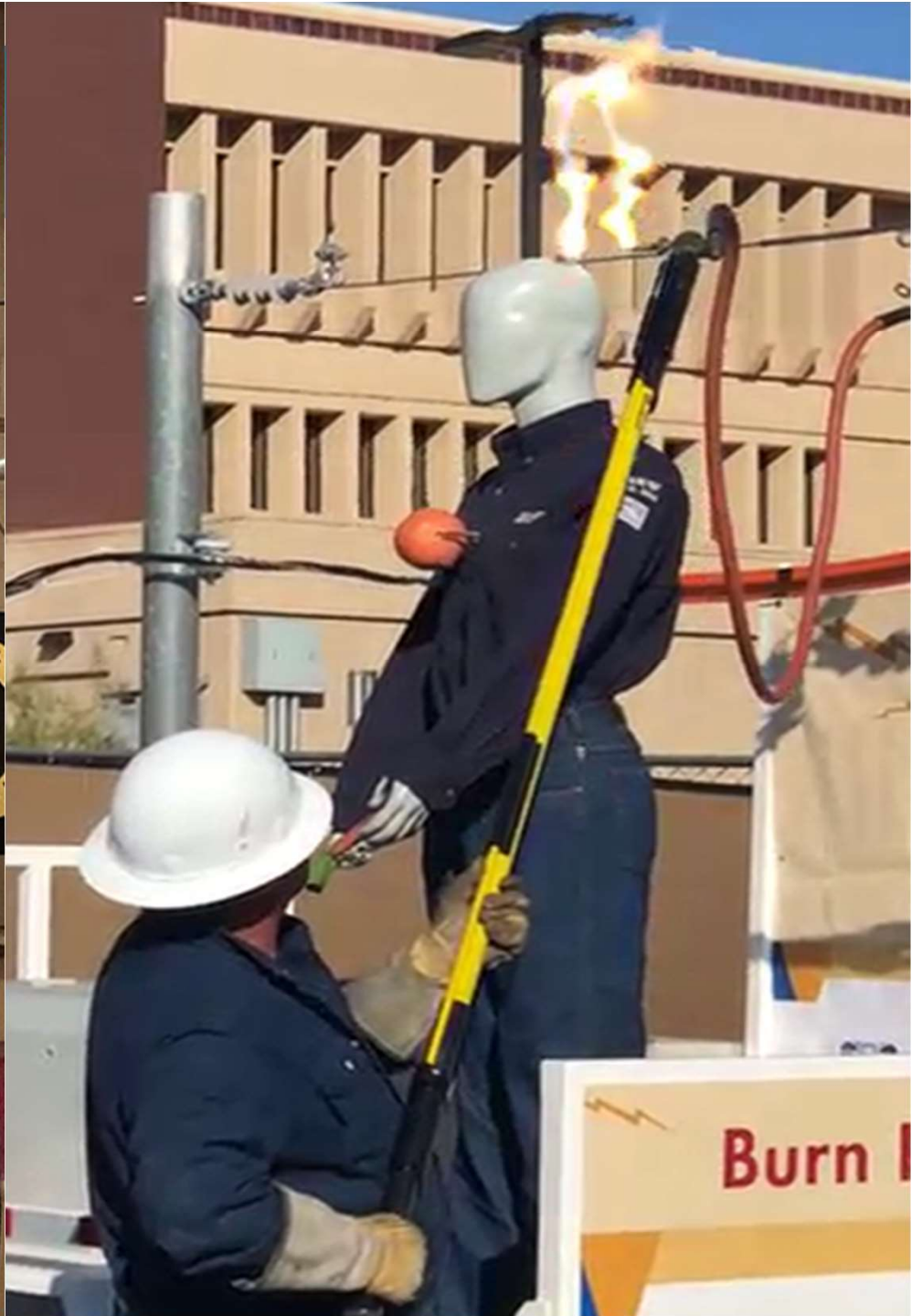
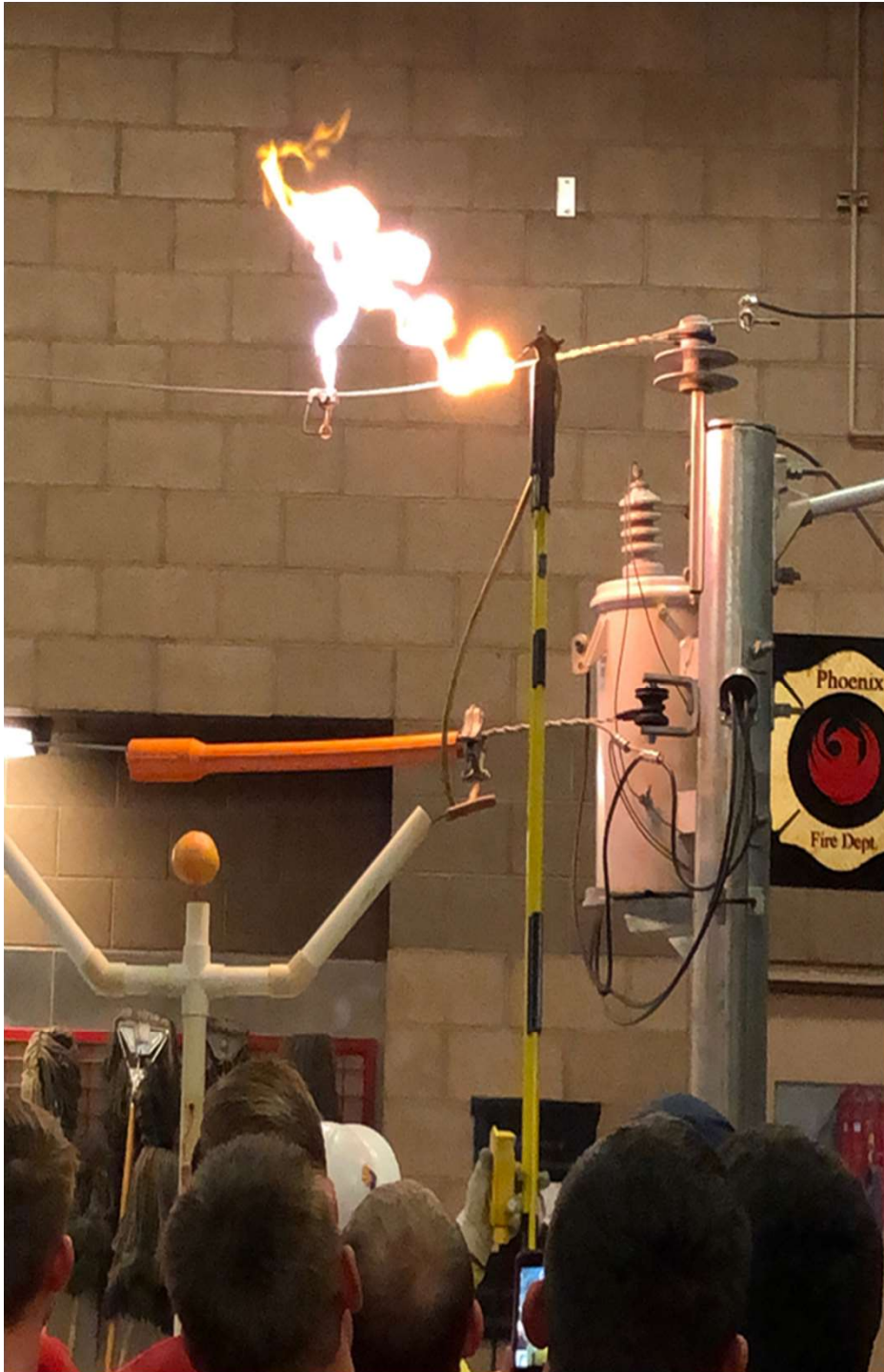














Questions?

