GIPSON BEARING ALONG WITH SKF & GATES -BEARINGS, GREASE, BELTS & SHEAVES

4 Contact Hours
8AM—NOON

<u>Date:</u> November 4, 2025 <u>Place:</u> IUOE LOCAL 95 Hall <u>Instructor:</u> Craig Gipson/SKF

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00

Approved for Stationary Engineer License



FILTECH FILTERS & AIR QUALITY

4 Contact Hours

8AM-NOON

<u>Date:</u> November 6, 2025 <u>Place:</u> IUOE LOCAL 95 Hall

Instructor: Andy Komar/Filtech

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00

Approved for Stationary Engineer & HVAC License



CHEMSEARCH: CHEMICAL SAFETY & SUSTAINABLE PRACTICES

4 Contact Hours

8AM—NOON

<u>Date:</u> November 5, 2025 <u>Place:</u> <u>IUOE Local 95 Hall</u> <u>Instructor:</u> Dan Mikolajczak

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00

Approved for Stationary Engineer License

** PLEASE SEE PAGES FOR COURSE

DESCRIPTION!!



RIGGING TECHNIQUES & OVERVIEW for STATIONARY ENGINEERS

4 Contact Hours

8AM—NOON

<u>Date:</u> November 6, 2025 <u>Place:</u> <u>IUOE Local 95 Hall</u> <u>Instructor:</u> Carl A Luisi Sr.

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00

Approved for Stationary Engineer License



POWER QUALITY & HARMONICS

16 Contact Hours
5PM-9PM

Date: November 6, 13, 20 & December 4, 2025

Place: IUOE LOCAL 95 Hall Instructor: Dan Kollar

Tuition:

License

Education Fund Members – \$0.00 Local 95 Members - \$760.00 Non-Members - \$1000.00

Active Retirees—\$0.00

Approved for Stationary Engineer & Electrical

**MUST ATTEND ALL CLASSES FOR CREDIT





SUSTAINABLE BUILDING OPERATIONS

Augmented GPRO Operations & Maintenance Training

16 Contact Hours
8AM—NOON

<u>Date:</u> November 10, 17, & December 1, 8, 2025

Place: IUOE LOCAL 95

Instructor: GBA

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$760.00 Non-Members - \$1000.00 Active Retirees - \$0.00

Approved for Stationary Engineer License

**MUST ATTEND ALL CLASSES FOR CREDIT



JOHNSON CONTROLS: FIRE ALARM 101

4 Contact Hours

8AM-NOON

<u>Date:</u> November 11, 2025 <u>Place:</u> IUOE LOCAL 95 Hall Instructor: Judy Croll/JCI

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00

Approved for Stationary Engineer License



TESTING, ADJUSTING AND BALANCING FOR MEDICAL FACILITIES

4 Contact Hours

8AM-NOON

<u>Date:</u> November 14, 2025 <u>Place:</u> IUOE LOCAL 95 Hall <u>Instructor:</u> SCOTT FIELDER

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees - \$0.00

Approved for Stationary Engineer & HVAC License



CLEVELAND PUMP REPAIRS

4 Contact Hours

8AM-NOON

<u>Date:</u> November 18, 2025 <u>Place:</u> <u>IUOE LOCAL 95 Hall</u> <u>Instructor:</u> Bob Lindsey/ CPR

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees - \$0.00

Approved for Stationary Engineer License



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STI: FIRE STOP TRAINING

4 Contact Hours

4PM-8PM

<u>Date:</u> November 20, 2025 <u>Place:</u> IUOE LOCAL 95 Hall <u>Instructor:</u> Jason Acerra/STI

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00

Approved for Stationary Engineer License



PGH AIR PRESENTS: JOHNSON CONTROLS OVERVIEW

4 Contact Hours

8AM-NOON

<u>Date:</u> November 20, 2025 Place: IUOE LOCAL 95 Hall

Instructor: Jason Konley/PGH Air

Tuition:

Education Fund Members – \$0.00 Local 95 Members - \$190.00 Non-Members - \$250.00 Active Retirees—\$0.00



Approved for Stationary Engineer License



An Employee Owned Company



CHEMSEARCH: CHEMICAL SAFETY & SUSTAINABLE PRACTICES-COURSE DESCRIPTION:

Chemical Safety and Sustainable Practices

Plumbing

Importance of Preventative maintenance

Methods of treatments for main lines

Danger of h2s gas accumulation in dead zones/ejector pits

Effective Ejector Pit treatments to insure no formation of h2s gas

Why drain flies accumulate, what they feed on, and safe

practices to prevent/treat an infestation

Ecoflow Presentation to show biological systems to sustainably

treat grease traps and reduce fats, oils, and grease output

Quiz Game

HVAC

Importance of Preventative Maintenance

Go over what cleaners are more effective for what systems

Danger of microbiological growth in systems, effects such as

legionella, and how/why to properly treat condensate pans

Inefficiency of systems when not properly treated Soda/ice machines safe practices and dangers when not

properly treated

Which type of lubricants are proper for specific applications

Safe practices for loading dock areas/grounds

Quiz Game

Odor Control

Impact odors can have on guests/tenants

Dangers of flies and rodents that can be attracted to dirty

areas

Pet areas, Trash room and chute cleaning

Ways to preventatively treat garbage compactors

Methods to go above and beyond the bare minimum when it

comes to odor control

Quiz game

Water treatment

The reasons we treat water; Prevention of rust, corrosion and microbiological growth within the systems and dangers they cause

Do's and don'ts/best practices for specific systems; different chemical treatments/biocides are more effective for certain systems depending on age, elements, and type of metal

Closed Loops systems functionality and methods of treatments for different types of loops

Different types of Cooling Towers, how they function and different methods of treatments depending on system

Quiz Game

15 minutes: Takeaways from class, Q&A/conclusion



POWER QUALITY AND HARMONICS

Summary

It is a property of three phase power systems that if each of the three hot conductors has a nearly equivalent load, that the neutral current will be nearly zero due to the fact that each phase current is "out of phase" with the other. In other words, the load currents "cancel out" in the neutral wire. In North America, sometimes the building wiring design takes advantage of the cancellation, and the neutral wire is sized smaller than the hot wires. Unfortunately, the harmonic currents created by NON-Linear loads cause the operation of this system to change.

The term harmonics commonly refers to a distortion of the normally smooth utility power. Harmonics are actually higher frequency voltages and currents and when added to the utility power, produce a distortion of the normal voltage or current waveform.

Harmonic frequencies are produced by the action of non-linear loads such as rectifiers, discharge lighting, or saturated electric machines, everything that we find in today's modern office building, high rise, hospital and college campus.

They are a frequent cause of power quality problems and can result in increased equipment and conductor heating. These harmonic currents create heat, this heat over a period of time, will raise the temperature of the neutral conductor. This rise in temperature can overheat the surrounding conductors and cause insulation failure, equipment failure, higher energy bills and consumption, misfiring in variable speed drives, and torque pulsations in HVAC systems, pumps, motors and generators.

Harmonics in power systems are generated by non-linear loads. Semiconductor devices like transistors, IGBTs, MOSFETS, diodes etc are all non-linear loads. Further examples of non-linear loads include common office equipment such as computers and printers, fluorescent and LED lighting, battery chargers and also variable-speed drives.

For Good Power Quality, the grounding system must be to code, this allows all equipment to have the same reference voltage. This helps the facility electronic equipments operation and helps prevent the flowing of objectionable currents on communication lines, seals and other connections.

POWER QUALITY AND HARMONICS

Course Outline - 16 hour seminar and hands on training

This 16 hour course covers the following topics as well as an extensive hands on testing and training.

Explanation of power quality

What quality power looks like

Problems with poor quality power

Steady state vs Transient types of disturbances

Power Frequency Disturbances

Power factor

Definition of power factor (PF)

Problems with low PF

Remedies

Voltage sags, under-voltage and outages

Definition of sags, under-voltages and outages

Causes of sags, under-voltages and outages

Typical remedies to protect against sags, under-voltage and outages

Voltage swells and over-voltage

Definition of swells and over-voltages

Sources of swells and over-voltages

Typical remedies to protect against swells and over-voltages

High Frequency Disturbances

Transient over-voltages

Definition of transients

Sources of transient over-voltages

Typical remedies to protect against transients

Electromagnetic Interference (EMI)

Definition of EMI and RFI

Sources of EMI

Typical remedies to protect against EMI

Harmonic distortion

Definition of harmonic distortion

Distorted waveforms & harmonic spectra

Sources of harmonics & effects of impedance

Harmonic resonance with capacitors

PWM Voltage Distortion

Effect of pulsed voltage on motors

Voltage reflection & voltage doubling

Typical methods to protect motors

Power Quality Measurements

Measurements, locations, instruments

PQ waveforms

Neutral overload

Proper grounding

CLASS CANCELLATIONS CAN NOT BE TAKEN OVER THE PHONE OR EMAIL.

ALL CLASS CANCELLATIONS MUST BE DONE VIA THE WEBSITE

ALL CERTIFICATES AND CONFIRMATIONS ARE SENT TO THE E-MAIL THAT YOU REGISTERED WITH. IF YOU ARE NOT RECEIVING CORRESPONDENCE, BE MINDFUL THAT MOST EMPLOYER SYSTEMS BLOCK OR MOVE OUTSIDE EMAILS TO TRASH. PLEASE CONSIDER

CERTIFICATES CAN TAKE UP TO 3 BUSINESS DAYS TO RECEIVE!

1F YOU NEED A DUPLICATE CERTIFICATE ALL REQUESTS MUST BE DONE VIA THE LOCAL
95 WEBSITE. CHECK YOUR SPAM/JUNK MAIL IF YOU CANNOT LOCATE IT.

CITY LICENSE RENEWAL CLASS CREDITS CAN BE TAKEN WITHIN 364 DAYS BE-





