

Lead Chief Operator Training at NEFCO/SWA Biosolids Treatment Facility

The Lead Chief Operator (LCO) at the Solid Waste Authority Biosolids Treatment Facility (BTF) receives the following training:

1. Plant Safety Training

a. Description of Training:

Lead Chief Operators are required to read and understand the NEFCO Safety Manual; Fire Prevention & Emergency Response Plan Manual; Chemical and Emergency Response Plan and obtain a working knowledge of Plant specific safety programs and systems. Various experts in their area of expertise will review the safety manual, safety procedures, Personal Protection Equipment (PPE) & safety protection systems with the LCO.

b. Trainer(s):

Training will be provided by: NEFCO Plant Manager, Safety Director, Corporate VP of Safety, along with outside experts and appropriate NEFCO written safety procedures, safety policies and vendor O&M manuals.

c. Training Content:

Specific plant safety items for training are as follows:

Safety Item	Trainer(s)
Lock Out Tag Out (LOTO)	Plant Manager or Designee & Safety Manual
Confined Space Entry	Plant Manager or Designee & Safety Manual
Fall Protection	Outside Expert (such as Cintas 1 st Aid & Safety Div.)
Sulfuric Acid Handling	Current Lead Chief Operator; Written Procedures
Sodium Hydroxide Storage	SWA Environmental
Sodium Hypochlorite Storage	SWA Environmental
Use of PPE	NEFCO Safety Director; Corporate V.P. of Safety
Gas Detection System (CO, H ₂ S, Gas Sniffers, Multiple Gas Detection)	Outside Expert (such as Farmer & Irwin); Plant Manager or Designee; & O&M Manuals
1 st Aid, CPR, AED, Blood Borne Pathogens	Outside Expert (such as Cintas 1 st Aid & Safety Division; American Red Cross)
Fire Extinguishers	Outside Expert (such as Cintas 1 st Aid; CWPB Fire Dept)
Arc Flash	Plant Manager or Designee; Outside Expert (such as Cintas 1 st Aid)
Fire Alarm/Fire Sprinkler System	Plant Manager or Designee; Outside Expert (such as Farmer & Irwin [Sprinkler System] & Advanced Alarm [Alarm System])
Fire Prevention & Emergency Response Manual	Plant Manager or Designee

d. Training Documentation:

A signed and dated statement from each trainer and LCO that verifies that the training was provided and the LCO understood the material. Each signed statement will include a basic outline of the training provided. Verification will involve an interactive discussion and some

verbal or written questions and answers. Outside Experts will have sign-in sheets, some will provide certificates; these will be filed in personnel files.

2. Environmental Compliance Training

a. Description of Training:

Lead Chief Operators are required to read and understand the following: NEFCO Spill Prevention, Control and Countermeasures (SPCC) Plan Manual; Chemical Emergency Response Plan; Pollution Prevention Plan (3P) Manual; and obtain a working knowledge of Plant specific environmental permits, such as Title V, CAM requirements, and the Effluent Water City Permit. Various experts in their area of expertise will review these manuals, environmental procedures, and reporting requirements with the LCO.

b. Trainer(s):

Training will be provided by: NEFCO Plant Manager, Fl. Department of Environmental Protection educational programs (where available/applicable), SWA Environmental Department, City of West Palm Beach's Industrial Pretreatment Program (IPP), NEFCO Vice President - Operations, NEFCO Environmental Compliance Manager, along with appropriate NEFCO written environmental procedures, policies and manuals.

c. Training Content:

Specific plant environmental items for training are as follows:

Environmental Item	Trainer(s)
SPCC Plan Manual	Plant Manager or Designee
Pollution Prevention Plan Manual	Plant Manager or Designee
Title V Permit & CAM Plan (SWABPF Requirements, ie: Sludge Feed)	SWA Environmental Department (i.e.: Marybeth Morrison)
Effluent Water City Permit	City of West Palm Beach IPP
Reading/Recording Weigh Belt, NG & LFG Meters*	Current Lead Chief Operator Plant Manager or Designee
Reporting Requirements of Title V Permit	NEFCO Corporate Environmental Compliance Mgr.
Chemical Emergency Response Plan	SWA Environmental Department
FDEP Biosolids Class AA Requirements per Fl. Rule 62-640 FAC	Fl. Department of Environmental Protection; NEFCO Corporate Environmental Compliance Mgr.

*NG = Natural Gas; LFG = Landfill Gas

d. Training Documentation:

A signed and dated statement from each trainer and LCO that verifies that the training was provided and the LCO understood the material. Each signed statement will include a basic outline of the training provided. Verification will involve an interactive discussion and possibly some verbal or written questions and answers; sign-in sheets may be included and filed in personnel files.

3. Laboratory and Sampling Training

a. Training Description:

LCO's are required to understand the plant sampling and testing requirements for Biosolids per Fl. Rule 62-640 of the Fl. Administrative Code (FAC) to perform certain testing and proper sampling and preparation of these samples for outside laboratory analysis. Experts in

their area of expertise will review these collection methods, sampling procedures, analysis required, and reporting requirements with the LCO.

b. Trainer(s):

Training will be provided by: NEFCO Plant Manager, Fl. Department of Environmental Protection approved educational programs, NEFCO Vice President - Operations, NEFCO Environmental Compliance Manager, along with appropriate NEFCO written sampling and laboratory procedures, sampling and laboratory policies and sampling and laboratory manuals.

c. Training Content:

Specific plant laboratory and sampling items for training are as follows:

Laboratory & Sampling Items	Trainer(s)
Weekly/Monthly Biosolids Sampling Events	NEFCO Corporate Environmental Compliance Mgr.
Monthly Biosolids Composite & Fecal Coliform Sampling	Fl. Department of Environmental Protection
pH/ORP Readings for Process & Bldg. Scrubbers	Plant Manager or Designee
Total Suspended Solids, pH Readings & Temperature at Lift Station for Effluent Water	Plant Manager or Designee; City of West Palm Beach IPP
Total Solids (Class AA & EQ) and Pellets	Fl. Department of Environmental Protection
Laboratory Data Collection	Current Lead Chief Operator; Outside Expert (ie: Everglades Laboratory); & FDEP Written Materials (Including but not limited to the 2008 DEP SOPs as located at WEB site http://www.dep.state.fl.us/water/sas/sop/sops.htm)
FDEP Biosolids Class AA Requirements per Fl. Rule 62-640 FAC	Fl. Department of Environmental Protection; NEFCO Corporate Environmental Compliance Mgr.
Use of SMART ⁵ Microwave for in-process control	NEFCO Corporate Environmental Compliance Mgr. Current Lead Chief Operator; & O&M Manual
Application of Standard Method 2540G	Lead Chief Operator; Written Current Method
Sieve Testing	Plant Manager or designee

d. Training Documentation:

A signed and dated statement from each trainer and LCO that verifies that the training was provided and the LCO understood the material. Each signed statement will include a basic outline of the training provided. Verification will involve an interactive discussion and some possible verbal or written questions and answers; sign-in sheets may be used and filed in personnel files.

4. Process & Equipment Training

a. Description of Training:

Lead Chief Operators are required to read and understand the NEFCO BTF O&M Manual and to review the major equipment O&M manuals published by manufacturers of the specific

processing equipment. Various experts in their area of expertise will review these manuals, production and processing procedures, policies and requirements with the LCO.

b. Trainer(s):

Training will be provided by: NEFCO Plant Manager, NEFCO Vice President - Operations, NEFCO Manager, appropriate NEFCO written production procedures, and written equipment O&M manuals.

c. Training Content:

Specific process and equipment items for training are as follows:

Process & Equipment Items	Trainer(s)
Sludge Receiving	Plant Manager or Designee
Conveyance Equipment	Plant Manager or Designee
Air System Components	Plant Manager or Designee
Dryer System Components	Plant Manager or Designee
Feed System Components	Plant Manager or Designee
SCADA System	O&M Manual; Plant Chief Electrician; Outside Expert (such as CCI)
NEFCO SWABPF O&M Manual	NEFCO Manager of Technology

d. Training Documentation:

A signed and dated statement from each trainer and LCO that verifies that the training was provided and the LCO understood the material. Each signed statement will include a brief outline of the training material. Verification will involve an interactive discussion and some possible verbal or written questions and answers; written testing and certificates will be employed and filed in personnel file, as well.

5. Maintenance Training

a. Description of Training

Lead Chief Operators are required to understand and have a working knowledge of the computerized maintenance management system (CMMS). Various experts in their area of expertise will review the CMMS procedures with the LCO. Also, NEFCO experts will review the O&M Manuals with the LCO.

b. Trainer(s):

Various experts in their area of expertise will review the CMMS procedures and policies with the LCO. Also, experts will review the O&M Manuals with the LCO.

c. Training Content:

Specific CMMS items for training are as follows:

CMMS Items	Trainer(s)
Use of MX4 CMMS System	Chief Maintenance Mechanic & Equipsoft Eagle Training
Maintenance of Equipment (assigned to LCO)	Plant Manager or Designee
Maintenance & Calibration requirements of CAM Associated Equipment & Instrumentation	Title V Permit; Chief Maintenance Mechanic

d. Training Documentation:

A signed and dated statement from each trainer and LCO that verifies that the training was provided and the LCO understood the material. Each signed statement will include a brief outline of the training provided. Verification will involve interactive discussions and some verbal questions and answers. Demonstration of use by new LCO will also be employed as a measurement tool.

6. Operations Training

a. Training Description:

LCO's are required to fully understand plant operations.

b. Trainer(s):

Various experts in their area of expertise will review the SWABPF Standard Operating Procedures (SOPs) and policies with the LCO. Also, experts will review the O&M Manuals with the LCO.

c. Training Content:

Specific operation items for training are as follows:

Operations Items	Trainer(s)
Chief's Log Requirements	Fl. Rule 62-602 FAC; and Plant Manager or Designee; or Current Lead Chief Operator
HMI (Wonderware Software)	Plant Manager or Designee; Outside Expert (such as CCI)
BTF Startup, Shutdown & Emergency Procedures – SOP's	Plant Manager or Designee; Written NEFCO Procedures

d. Training Documentation:

A signed and dated statement from each trainer and LCO that verifies that the training was provided and the LCO understood the material. Each signed statement will include a brief outline of the training provided. Verification will involve interactive discussions and some verbal questions and answers. Demonstration of use by new LCO will also be employed as a measurement tool.

Note:

- 1) All training documentation will be kept on file and will be refreshed every other year.
- 2) Outside experts are generally considered anyone other than NEFCO, the SWA or FDEP that has expertise in the area they will be providing training. An example is a supplier of specialized equipment that is used at the BTF.
- 3) FDEP, as trainer, may include written procedures/requirements, and/or other FDEP approved education, as available.
- 4) All NEFCO experts used for training have at a minimum of a Bachelor's degree in a related science program and greater than five (5) years of applicable Biosolids experience.
- 5) CCI is Commerce Controls Inc., the original project system integrator for the SWABPF.
- 6) Equipsoft Eagle is the developer and supplier of NEFCO's MX4 CMMS.