

### 3.1.18

#### **EMS Aspects: Auxiliary Enterprises, Student Housing Fire Protection, Air**

#### **Aspect Ranking: 6**

Auxiliary Enterprises (AE) is a division within University of Texas Health Science Center at Houston (UTHSC-H) comprised of business entities which specialize in services for the student, faculty, employee and often the Texas Medical Center community.

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#### **Student Housing Fire Protection, Environmental Releases**

##### **Task/Activity Description:**

Air emissions compliance and record keeping

The new student housing apartment complex at UTHSC-H contains one emergency power generator which supplies electricity solely to the fire pump in the case of normal grid interruption. This generator runs on diesel fuel. Nitrogen oxides (NO<sub>x</sub>) are released during the combustion process in the engine and are regulated by the Federal Clean Air Act and the Texas Clean Air Act.

The Houston Galveston area is designated as a severe non-attainment area for ozone. This designation limits the potential to emit (PTE) for minor sources of air pollution to 25 tons per year (TPY) of VOC's and 25 TPY of Nitrogen Oxides. The Environmental Protection Program has completed an analysis of the annual emissions from all emergency power generators to demonstrate compliance with minor source limits.

The UTHSC-H emergency generators are authorized by Permit by Rule, 30 TAC §106.511 which applies to Portable and Emergency Engines and Turbines. Generator usage is limited to 10% of the normal annual operating schedule. In addition, 30 TAC Chapter 117 applies to combustion sources and specifies operation, record keeping, and run time meter requirements.

##### **Key Control Points:**

The permit by rule and Houston-Galveston area conditions are evaluated and NO<sub>x</sub> PTE is calculated by the EPP utilizing a 12 month rolling average for generator run times. The evaluation of permit by rule conditions is completed annually or upon significant change in equipment. This generator is not located contiguously to other UTHSC-H sources of

NOx in the Texas Medical Center and is not included in the annual certification of emissions for designation as a synthetic minor source.

**Related Forms, Records, SOPs:**

- EHSA

**Personnel Responsible:**

Auxiliary Enterprise Facilities Personnel

- Maintain generator usage records
- Operate generators for routine testing before 6 AM or after 12 PM

Safety Specialists, EPP

- Assists with the collection of usage records
- Perform semi-annual survey
- Perform annual air emissions analysis

Safety Manager, EPP

- Oversee and conduct PTE evaluations and retain documented results

Director, EHS

- Liaison with the VP Auxiliary Enterprise
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**Environmental Compliance (Air Releases) Program**

**Task/Activity Description:**

Emergency Power Air Emission and Environmental Health & Safety Survey

Schedule: Semiannually

To assist personnel, who operate the emergency generators at UTHSC-H, in complying with the requirements for control of NOx emissions and general safety, the Environmental Health & Safety Department's Environmental Protection Program (EPP) conducts semiannual surveys of the emergency generators and monthly record keeping of usage hours.

Inspections are performed by the EPP manager or safety specialist utilizing a checklist survey form. Currently, deficiencies are noted on the form by checking the "yes, no, or not applicable" boxes or by adding items to an additional comments section on the survey form. Once the survey is complete, a memo listing any noted deficiencies and corrective actions is sent to the maintenance supervisor.

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Owner: EH&S/EPP – JPJ

Reviewed:

Deficiencies noted during the survey are tracked for resolution utilizing EHS Assistant. As part of the deficiency tracking process, at least thirty days are given to correct any deficiencies, before potentially escalating enforcement actions.

**Key Control Points:**

- Identify sources of NOx and compare management practices to regulatory requirements
- Identify potential mismanagement, improper storage, and disposal of hazardous wastes
- Communicate environmental compliance requirements to personnel who operate emergency generators

**Related Forms, Records, SOPs:**

Emergency Generator Survey Form

**Personnel Responsible:**

Maintenance Supervisor, AE

- Oversee emergency generator operations and ensure routine testing occurs before 6 AM and 12 PM

Manager/Safety Specialists, EPP

- Perform semiannual survey
- Enter deficiencies into database and generate memo report
- Track appropriate response through deficiency database
- Monitor inspection schedule through the EPP compliance calendar
- Advise appropriate actions on the compliance process
- Retain inspection and air emission documentation for 5 years

Director, EHS

- Liaison with the VP Auxiliary Enterprise
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## **Annual Training – Environmental Management Systems and Environmental Awareness**

### **Task/Activity Description:**

For the communication of environmental programs and environmental management systems, the EPP provides training for maintenance staff. This training introduces and reinforces environmental management system principles, air emission control practices specific to the emergency generator operations, and environmental concerns and compliance requirements for air emissions and hazardous materials management. The training may be scheduled and lead by an instructor, administered during semi-annual inspections, or accessed via the EH&S web page.

### **Key Control Points:**

- Communicate environmental compliance requirements and environmental management concepts to personnel who operate, clean, and maintain emergency generators.
- Communicate environmental compliance requirements and environmental management concepts to personnel who dispose of hazardous and potentially hazardous wastes

### **Related Forms, Records, SOPs:**

- Environmental Awareness and Environmental Management Systems

### **Personnel Responsible:**

Facilities Personnel/Directors

- Ensure staff attend training

Manager/Safety Specialists, EPP

- Develop training materials and submit updates to for web page
- Schedule training as appropriate
- Present training materials to emergency generator operators
- Document training by obtaining a sign in sheet with all participants listed, deliver sign in sheet to EH&S administrative assistant who will enter names of personnel trained into a training data base

Director, EHS

- Liaison with the VP Auxiliary Enterprise
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