



# Connecticut Department of Energy and Environmental Protection



# RCSA Sections 22a-174-22e and -22f: Current Drafts and Changes Since June 11 Meeting

SIPRAC New Section 22 Workgroup (i.e., SIPRAC  
Section 22-TNG Workgroup)

13 August 2015  
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# Back to the Beginning: Goal/Definition of Success

- Develop Next Generation Section 22 to reduce NO<sub>x</sub> emissions from fuel-burning sources to protect human health and the environment and allow EPA to approve the regulation as RACT for major sources of NO<sub>x</sub> under the 2008 ozone NAAQS. In addition, the regulation should:
  - Include a second phase to satisfy RACT under the 2015 ozone NAAQS.
  - To the extent possible, address the considerations identified in this presentation (HEDD, maintaining CAIR reductions, etc.).
  - Be clear on its face.



**ROAD TO SUCCESS**  
**NEXT EXIT ↗**



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# Overview

- Last general meeting with you was on June 11, 2015. On July 1, we met with a subset of you to focus on stack testing.
- Few comments received from you; comments were submitted by the Sierra Club (available on RACT page). Numerous comments from Air Bureau staff and managers.
- Today:
  - Provide an overview of the current draft of Section 22e and applicability of Section 22f.
  - Hear your initial comments and questions on the current drafts.
  - Materials provided:
    - Complete, clean draft of Section 22e.
    - Subsections (b) and (c) of Section 22f.



# Anatomy of Latest Draft of Section 22e

- Very few or no changes:
  - Subsection (b), Applicability (removed Title V reference)
  - Subsection (c), Exemptions and exceptions
  - Subsection (f), Permanent cessation of operation
  - Subsection (i), Tune-up requirements
  - Subsections (j) and (k), Record keeping and Reporting
  - Subsection (m), Monitoring
- Substantial changes:
  - Subsection (a), Definitions
  - Subsection (d), Emissions limitations
  - Subsection (g), Compliance options
  - Subsection (h), Case-by-case RACT demonstration
  - Subsection (l), Emission testing
- Distributed draft is not marked to show changes from last draft.



# Subsection (a), Definitions

- Added definitions for combined heat and power/cogeneration, cyclone boiler, digester gas, duct burner, landfill gas, relative accuracy test audit, RCSA, test stand/test cell, uninstalled engine.
- Removed definitions for “out-of-control period” and “unit designed to burn gas 1 subcategory.”
- Changed definitions for “emergency,” “emergency engine” and “ICI boiler.”



# Subsection (c), Exemptions and exceptions

- Reordered the subsection references in subsections (c)(3), (c)(5), (c)(6), (c)(7) and (c)(8) in response to a request.
- Replaced reference to 40 CFR 1068.30 with 40 CFR 89.2 in subsection (c)(9).





# Subsection (d), Emissions limitations

- Added language to subsections (d)(2), (d)(3), (d)(4), (d)(5) and (d)(6) regarding averaging times (will have to add averaging time language to subsections (d)(7) and (d)(8)).
- Removed 0.15 lb/MMBtu non-ozone season limitation from emissions limitation tables if daily block average emissions limitation is less than or equal to 0.15 lb/MMBtu.
- Removed 0.90 lb/MMBtu emissions limitation for simple cycle combustion turbines.
- Changed Phase 1 daily block average emissions limitations and removed Phase 1 ozone season limits for combined cycle combustion turbines.
- Slightly revised wording of subsections (d)(7) (180 ppmvd limit) and (d)(14) (fuel other than those identified).



# Subsection (g), Compliance options

- Conceptually, a compliance option should yield an environmental benefit similar to complying with emissions limitations.
  - Number of options reduced.
  - Remaining options have more specific requirements.
- Options that remain (not available for all types of emissions units):
  - 40% reduction in emissions from 2014 (Phase 1) or 2019 (Phase 2) baseline average emission rate .
  - For Phase 1 only, use of DERs.
  - Cap emissions to the lower of (1) 40% of 2014 (Phase 1) or 2019 (Phase 2) allowable emissions or (2) average actual emissions over a designated time.
  - For units that combust gas and oil, combust gas only.
  - Commit to retire another unit(s) at the same facility if retirement will reduce emissions as much as or more than compliance of the unit and unit-to-be-retired with the target emissions limitations.
  - Install and operate water injection technology.
  - Limit operations only to ISO New England OP4 Action 6 events.



# Subsection (g), Compliance options

- Note that there are minor revisions to subsection (g)(8), (9) and (11) concerning actions under a compliance plan, and the expiration of the compliance options.



# Subsection (h), Case-by-case RACT

- This subsection is new to the subcommittee.
- Case-by-case RACT requires:
  - Demonstration that the emissions limitations are not technically or economically feasible.
  - Demonstration that each compliance option is not technologically or economical feasible.
  - Commissioner's approval.
  - An order or a permit to implement.
  - An informational hearing.
- Intention is that very few units will operate under a case-by-case determination.



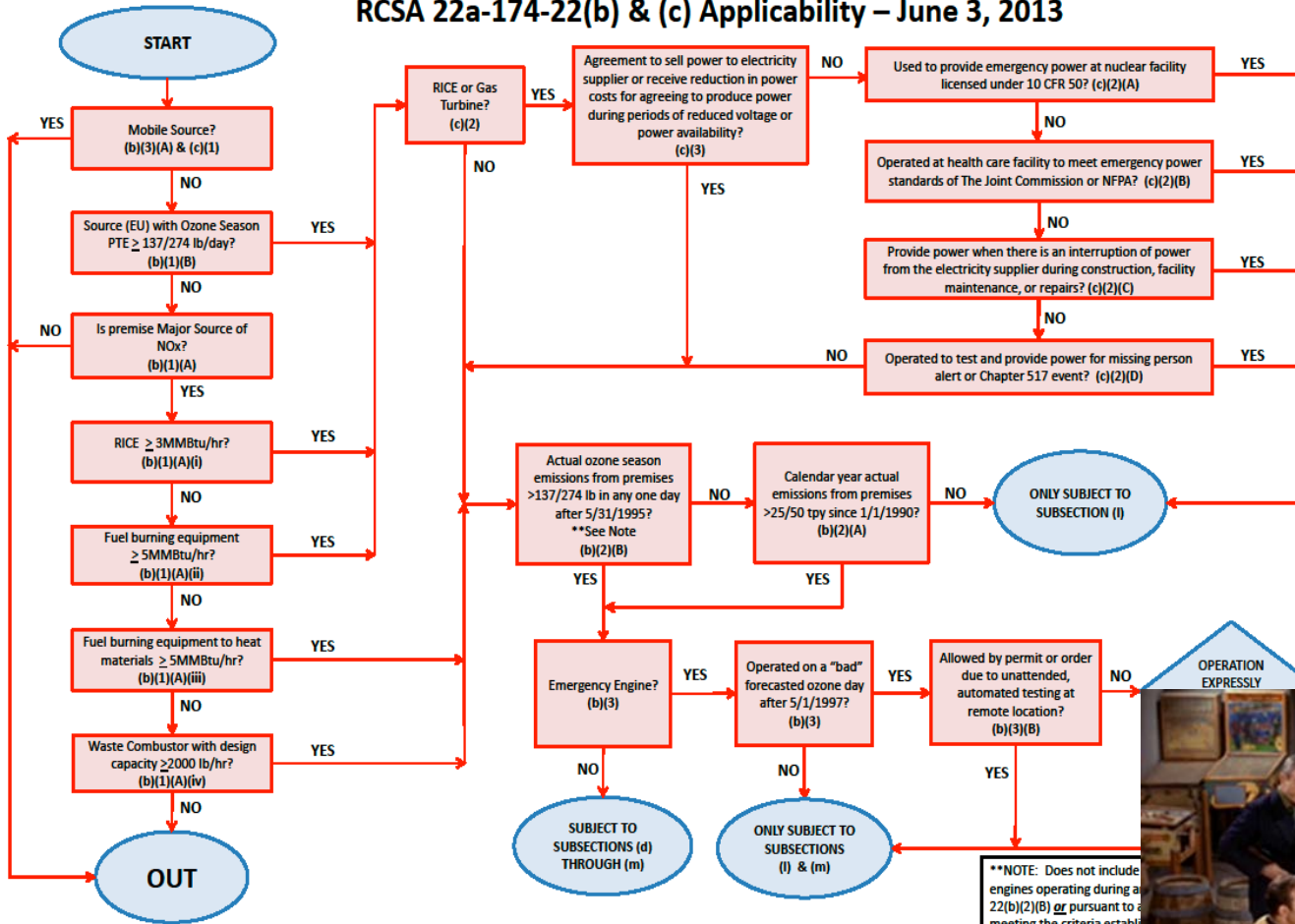
# Subsection (/), Emission testing

- Added additional language clarifying testing frequency, especially regarding the transition from Section 22 to Section 22e and from Phase 1 to Phase 2.
- Added timing requirement for request for alternative to three one-hour test runs.
- **NEWS FLASH:** *We will be revising the language so that units subject to Section 22e and 40 CFR 60 subpart KKKK will be able to test according to subpart KKKK only (frequency and load).*



# Eliminate Need for This

## RCSA 22a-174-22(b) & (c) Applicability – June 3, 2013



**\*\*NOTE:** Does not include engines operating during a 22(b)(2)(B) or pursuant to a meeting the criteria estab



# Anatomy of Section 22f

- Still looks undeveloped. However, much of the language in Section 22e will be replicated in Section 22f.
- Conceptually, Section 22f addresses a unit at a facility that is not major for NO<sub>x</sub> if the unit:
  - Emits  $\geq$  the 137/274 pound per day NO<sub>x</sub>; or
  - Is an “affected unit” (*i.e.*, a CAIR source).
- Splitting into 22e and 22f to avoid confusion over what equipment is regulated.
- Equipment at premises limited by a GPLPE may be subject to Section 22f.
- Note: the date for inclusion based on emissions is reset to the effective date.



# Changes to Section 22f(b)

- Applicability of Section 22f last provided to you has been split into two subsections, applicability and exemptions.
- Removed reference to Table 22f-1. There will not be a listing of units to which the section applies.
- Added exemptions, including:
  - emergency engines;
  - emergency/alternative power for NRC mandated systems; hospital/health care facility emission units used to meet The Joint Commission/NFPA standards;
  - EAS Participants (i.e., emergency broadcasting); and
  - emission units with practicably enforceable limitations  $<137/274$  lb/ozone season day.
- Still discussing inclusion of units  $\geq 137/274$  pounds per day if  $< 5$  MMBtu/hr (or 3 MMBtu/hr for engines).





# Next Steps

- Provide your comments on the distributed drafts by September 3.
- Next meeting? Perhaps no additional meetings needed for Section 22e. October meeting likely for Section 22f.
- SIPRAC email list and RACT web page will be used to announce Section 22f meeting date and time.



# Quiz

## Question 1

When was classic Star Trek first televised?



# Question 1 Answer

September 8, 1966



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# Question 2

(A) What was “The Book”?

(B) Name the classic Trek episode.



# Question 2 Answer

(A) *Chicago Mobs of the Twenties*, left behind by the USS Horizon on Sigma Iotia II.

(B) A Piece of the Action



# Question 3

Who was the first classic Trek crewmember to appear in The Next Generation?



# Question 3 Answer

Admiral Leonard H. McCoy (Ret.). He showed up in the premier, Encounter at Farpoint.



# Now it's time to "Make it so"...



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