## Examples of Property Description, Rule Citation and Environmental Benefit

### Incomplete Property Description, Rule Citation and Environmental Benefit

**Property Description**
*11. Describe the property. (What is it? Where is it located within the production process? How is it used to control, prevent, or monitor pollution?)*

Sorbent Injection System Additions

**Applicable Rule**
*12. What adopted environmental rule or regulation is being met by the construction or installation of the property? The citation must be to the specific section, subsection, paragraph, subparagraph, or clause level. Describe how the property meets or exceeds the requirements.*

40 CFR §63

**Environmental Benefit**
*13. What is the anticipated environmental benefit related to the construction or installation of the property?*

Reduced emissions

**Complete Property Description, Rule Citation and Environmental Benefit**

***Property Description***

*11. Describe the property. (What is it? Where is it located within the production process? How is it used to control, prevent, or monitor pollution?)*

Facility Background:

Steam Electric Station (SES) is a coal fuel-fired electric utility steam generating station consisting of units (1, 2 and 3) and dedicated ancillary equipment. Flue gases from the boilers are routed to each unit's particulate matter control equipment, an electrostatic precipitator (ESP) and then through a flue gas desulfurization (FGD) system. The flue gas exits through each unit's stack.

The units have previously been equipped with mercury sorbent injection systems, which inject "back-end" mercury sorbent into each flue gas exhaust to accomplish mercury control. The injected sorbent binds with mercury in the flue gas and is removed by the ESP and FGD systems. Positive use determinations were previously issued for this property.

Sorbent Injection System Additions were installed on Units 1, 2 and 3. The Sorbent Injection System Additions consist of two dry bulk material storage silos each with associated product delivery transport piping and a particulate matter bin vent filter, for receiving and storage of the mercury sorbent enhancement additives (SEA) which are to be "front-end" injected into each boiler; and pneumatic feeder trains and transport line additions including the pneumatic feeder trains and transport lines for transfer of SEA out of the silos, and injection points for front-end injection of SEA into the boiler combustion process on each unit.

The property outlined above is used to conduct front-end injection of SEA into the 1, 2 and 3 boilers in order to enhance mercury emissions control. This injected SEA contains compounds known to promote mercury oxidation. The oxidized mercury enhances performance of the back-end mercury sorbent materials that are injected into each unit's flue gas using the existing portion of each unit's sorbent injection system. The Sorbent Injection System Additions are dedicated systems for Unit 1 and a common Sorbent Injection system for Units 2 & 3.

***Applicable Rule***

*12. What adopted environmental rule or regulation is being met by the construction or installation of the property? The citation must be to the specific section, subsection, paragraph, subparagraph, or clause level. Describe how the property meets or exceeds the requirements.*

The SES Sorbent Injection System Additions are being installed in order to meet or exceed the requirements of Mercury and Air Toxics Standards (MATS) published in 40 Code of Federal Regulations (CFR) Parts 60 and 63, published in the Federal Register on February 16, 2012. Specifically, per 40 CFR §63.9991(a), SES units must comply with the mercury emissions limits in Table 1 of 40 CFR Part 63, Subpart UUUUU.

The facility will modulate operation of the SES Unit 1, 2 & 3 Sorbent Injection Systems, as needed, to optimize system performance and reduce mercury emissions in order to achieve compliance with the mercury emissions limitations in the MATS. The upgraded sorbent injection systems will be used as necessary to comply with applicable MATS requirements and mercury emissions limitations.

***Environmental Benefit***

*13. What is the anticipated environmental benefit related to the construction or installation of the property?*

The Sorbent Injection System Additions at SES Units 1, 2 and 3 are being installed to reduce emissions of mercury from the operation of the 1, 2 and 3 boilers.