December 2011

COMBUSTION SYSTEM IMPROVEMENT

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 372

DESCRIPTION

Combustion system improvement is used to install, replace, or retrofit an agricultural combustion system and/or related components or devices for air quality and energy efficiency improvement.

PRACTICE INFORMATION

Combustion system improvement can be used to reduce emissions of fine particulate matter and/or oxides of nitrogen (NOx). This standard can also be used to improve the energy efficiency of an agricultural combustion system.

Agricultural combustion systems are stationary (e.g., engines, heaters, etc.) or mobile (e.g., tractors, etc.) power units that combust fossil fuels. New and replacement systems must be either non-combustion units or result in less emissions and/or energy usage.

Design criteria for this practice include proper sizing of the new or replacement combustion system, requirements for proper disposal of replaced or removed combustion systems and parts, and expected air emissions and/or energy usage from the existing and new, replacement, ore retrofitted combustion system. An operation and maintenance plan is developed specifically for each system.

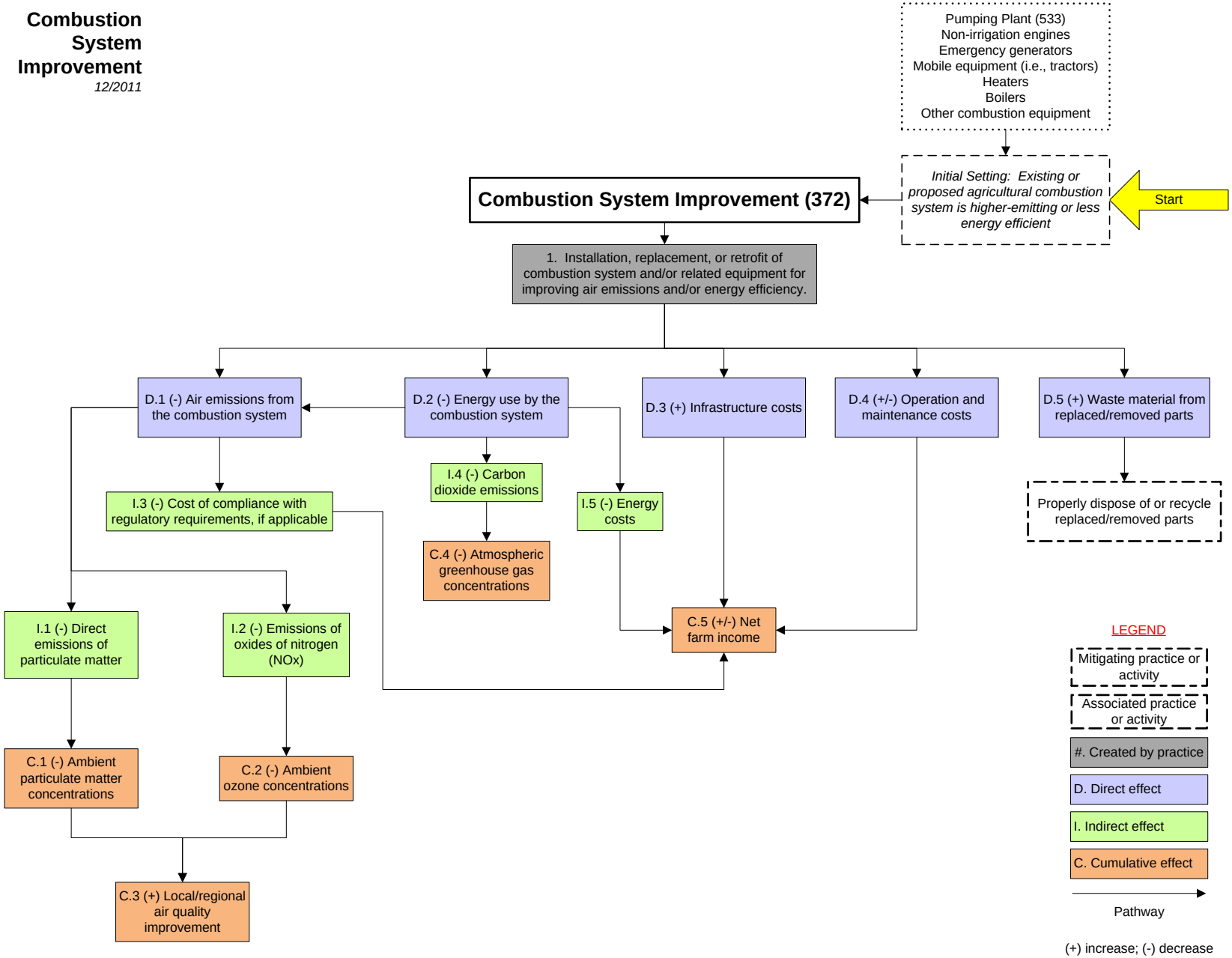
COMMON ASSOCIATED PRACTICES

Combustion System Improvement is commonly applied as part of a Conservation Management System with Pumping Plant (533) or as a stand-alone practice. For a combustion system associated with a pumping plant (i.e., a pumping plant power unit), the Pumping Plant (533) practice standard is applied as the primary practice standard. This standard (Combustion System Improvement) may also be applied as a secondary standard for addressing air or energy purposes.

For further information, refer to the practice standard in the local Field Office Technical Guide and associated practice specifications.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

Combustion System Improvement
12/2011



The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.