



Digital Opacity Compliance System Second Generation



DOCS to DOCS II SaaS

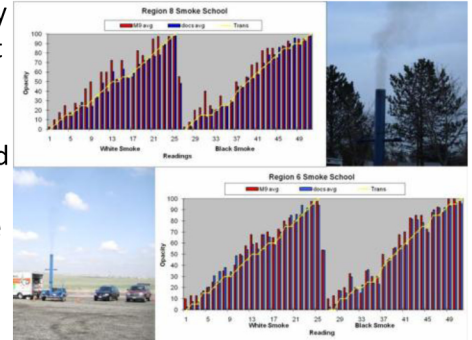
The DOCS project was initiated by the Department of Defense in 2003, with a goal of reducing the \$15 million per year the DoD spends certifying human Method 9 observers to observe sources regulated with opacity limits. In 2006, VTLLC was contracted to test and validate the DOCS prototype system. Upon completion of the validation tests the USAF decided that the DOCS system required a technology refresh and business process Improvement. VTLLC, working with multiple inspectors, defined the user experience required to gain acceptance from visible



DOCS II ASTM & ALT 082 Certifications

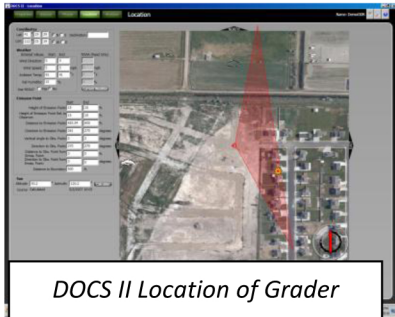
emission observers (VEO). VTLLC completely reengineered the DOCS

releasing, DOCS II in 2008. DOCS II is a familiar, easy to use program that reduces the time required for a Method 9 observation. Acceptance of DOCS II required two non-technical components: 1) A consensus standard that would enable the EPA and States to adopt DOCS II for visible emission observations. 2) DOCS II would have to be embraced by the existing smoke school infrastructure, to facilitate training, and distribution.



Opacity Readings DOCS II against Humans against a Transmissometer

DOCS II Location of Grader



DOCS II Location of Grader

The ASTM standards committee (D22) Air Quality, created ASTM D7520-09 "Standard Test Method to Determine the Opacity of a Plume in the Outdoor Ambient Atmosphere using a Digital Camera Technique". ASTM D7520-09 was approved by ASTM, October 2009. ASTM D7520-09, is a performance standard dictating the certification requirements for opacity measurement using digital cameras. DOCS II performed the D7520-09 certification process in 2009. The US EPA OAQPS published EPA Alternate Method 082, in April 2011, allowing use with ASTM D7520-09 plus EPA conditions to be used in Lieu of Method 9 at Federal Facilities, Published in Feb 2012 in 40 CFR, accepted for use on sources included in all sub parts of 60, 61, 63 in lieu of Method 9.



DOCS II Opacity of Grader Dust

Green Wire Tech, VTLLC, and the nation's largest smoke school operator "Eastern Technical Associates" perfected DOCS II to optimize the training, certification, observation process for, human VEO's, both with and without camera's to evolve DOCS II into a Software as a Service Distribute model enabling a seamless transition from manual to automated VEO's.

Training of DOCS II users began nationally in 2010. DOCS II offers many advantages to the field smoke reader: field data is electronically acquired eliminating bulky instruments, increasing accuracy while saving time. The Digital VEO contains: Validated VEO record, GPS, Bering's, Angles, Distances, Weather, etc. Images, Opacity, Area observed. All, in the palm of the VEO Observer's hand, fast, easy, accurate, cost effective, and forensically solid.

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DOCS II SaaS, w/Field Collection, Driod 10X, Cannon G11 and Web Analysis, via Online Opacity Lab