Griswold, Jim, EMNRD

From: Richardson, Clinton <clinton.richardson@nmt.edu>
Sent: Monday, September 12, 2016 12:22 PM
To: Griswold, Jim, EMNRD
Subject: H2S Emission Report

Jim:
I have reviewed the H2S modeling effort by ParkHill,Smith &.Cooper. They used a standard EPA screening model, of which I am familiar. The assumptions used to gauge a worst-case scenario are reasonable within the limitations of a screening model. The calculations to estimate the emission rate is based on a maximum ppmv of 10 upon discharge to the loadout area and Henry's constant. I verified the calculations leading up to the model input of area emission rate (Q). Default values were used for mixing height and anemometer height. Flat rural terrain were assumed. Source height was based on the loadout height. Three receptor heights were modeled up to 1200 m from the facility. The wind velocity at the source and stack height was 1.0 m/s. I do not know if this corresponds to historical wind conditions. A full meteorology simulation was conducted (all stability classes and wind speeds in combination are calculated that yields the worst-case maximum concentration). The simulations indicate ppbv concentrations at the target distance: It looks like from the figure that at the CK Disposal boundary, the concentration is around 10 ppbv or less. Note that the emission rate was based on 10 ppmv. The protocol in the permit application says any thing above 10 ppmv will be treated with Ca(OCl)2 down to 1 ppmv. Hope this helps.
Clint

CK Disposal, LLC
Applicant's Exhibit ✓
NMOCD Case No. 15617
Feb. 8-10, 2017