Jan. 10, 2014: WV Crude MCHM spill
M. Dorsey, WV DEP
2,000 - 5,000 g released from tanks
some of which made it outside
secondary containment

spill impacted water plant, breakthrough filters
1ppm to 2ppm
CDC prescribes 1ppm limit for drinking $H_2O$
calculated odor threshold @ 0.1ppm
- odor & taste is non issue

EPA performing air monitoring
2 EPA OSCs in Charleston, WV
ORSANCO,
downstream $H_2O$ sampling @ Amos PP RM40
Winfield RM31
- sampling every 2 hrs. to determine length of plume @ single point.

4,000 cfs Kanawha
80,000 cfs Ohio
> significant dilution capacity



Jan. 14, 2014: Ohio River MCHM Spill
1/14 @ 1900 hrs.
ORSANCO: ODS mostly incapable of detecting compound
Ashland: possibly some results there that are useful
Maysville: notable to reproduce Ashland results (possible lab contamination)
Portsmouth: unable to reach d.l.
Cincinnati: has revised data set for samples collected @ Portsmouth
- ORSANCO reports that the lab is "overwhelmed"
NKY: can't analyze for compound
Louisville: has limited capability

Where is it:
Meldahl Dam - today
Huntington - think that tail has gone by
Cincy: past here in 24 hrs.

KDEP: plans to collect samples @ Ashland, Maysville, N KY & Louisville, beginning 1/15/14.

Modeling: when do conc's become so low that it's a non-issue?

8/60T

JAN. 15, 2014:
telecon - w/ Dennis Matlock
J. Kelly - env. unit in Philadelphia
(0900 conf. call daily)
MCHM m/f. Eastman Chemical

leak is stabilized @ present time
boom protecting intake has been withdrawn.
mat'l looked like it floated initially

1330hrs. mtg. @ ORSANCO offices

ORSANCO:
- leading edge / plume arrived @ Cinn RMTP @ 0700hrs. this morn'
river: avg. velocity @ 3.5mph
24 hr. plume duration @ this location
estimates: to reach Louisville in 39 hrs.
(2200hrs. 1/16/14)
Cincy water (RMTP) should have profile of curve for their intake locations by 0900hrs 1/16/14



✓ SEND KDEP sampling plan
✓ SEND ORSANCO address

1500hrs.
R4 Teleconference:
sitrep: send from ICP
RRT 3,4,5 Teleconference
R3: UC @ Charleston: EPA, WV DEP, USCG, PRP
CSB onsite to do investigation
WV American $H_2O$ - system flushing underway
50% of system flushed to date
status of leak:
R3 believes that leak is secured but will investigate for pockets under the tanks

ORSANCO:
NKY & RMTP running samples
Louisville: being outfitted w/ std.'s
W.V.: Mt. Vernon, Henderson, Morgantown
methods:
RMTP: DuPont
Huntington: diff method
Louisville: SPME

ATSDR: reviews of water quality data
Chris Weitz (toxicologist) NIH
"white paper" how 1 mg/L was derived

1/15/14: RRT 3, 4, 5 Conf. Call
PIO Support: James Pinkney
R3: WV DEP & WV American
has handled public information
R3 - coordinating w/ release of public info.
w/ R4 HQ.
R3 - seeing coverage of incident
that's critical of EPA

KDEP: sampling activities

1/15: Louisville Westport Carrollton
Manchester, OH, Vanceburg, KY
Portsmouth, OH, Catlettsburg, KY
4

1/16: same 7 + Rabbit Hash, Newport, (3)
California, (2) Augusta (1) & Brandenburg

8/2 OT



1/16/14: OR ~~MCH~~ MCHM Sp. C1
(0900 hrs.)
Orsanco produced plume graphs
for Meldahl Dam MM436
Beckjord Power Plant Duke Energy
New Richmond, OH 452
Cinn. RMTP MM 463
1-14-2000 through 1-16-0400
Max. conc. 20 ppb, 24 hr. duration

* Huntington graph ok to publish
peak
conc.'s are decreasing w/ time

leading edge estimated to be @ Carrollton KY
@ 0700 hrs EST 1-16-14

estimate ~3 mph velocity near Louisville

plume estimate to be @ Louisville intake
@ 0400 hrs on ~~[illegible]~~ 01-17-14

LINC: monitoring @ various pts. upstream to
determine dosage for PAC application.

KDEP: chronology of sampling activity

01/15 Catlettsburg, KY
South Shore, KY > MID-RIVER
Ashland Vanceburg, KY
DIN Trinity, KY

01/16 Augusta, KY
California, KY
Newport, KY > Rabbit Hash
+ Ashland, KY DIN'N

+ Carrollton, KY
Westport, KY
Louisville, KY

RAW & Finished $H_2O$ Sampling
01/15: Ashland, Russell, Maysville,
N KY Water District, Louisville
01/16: Ashland, Russell, Maysville
N KY Water District, Louisville

ORSANCO:
goal is to have Lville & Eville
use Crude MCHMAS std
so that results btwn H'ton, Lville,
& Eville are comparable



1/10/14: 1630 hrs mtg.
USGS sampling for 01/17:
cross sectional river profile @
Louisville, LPB, RDB & mid-pt.
& xsect. btwn Payne & Zorn plants

START ship to ERT
KDEP will furnish bottles
N KY re-open @ 1130 hrs., Cincy WW re-open @ 1400 hrs
KDEP:
unable to get Westport sample today

for 1/17:
Mr. Brandenburg & Carrollton LPD
keeping Westport & Louisville
KDEP ESB reports that they are
able to achieve 10 ppb Q.L.

from ORSANCO:
Cincy WTP will run backlogged samples
WV, Portsmouth, OH, Maysville WTPs
samples collected for USCG/KDEP
mission on 01/14.

8/2 hrs. OT

1/17/14:
LT Jones ? MSD Cin.
John Joeckel (Yay Kel)
@ 0900 m'tg. here @ ORSANCO

• plume arrived a RM 600.5 Zorn intake
@ 0530 hrs. this AM

LWC & ORSANCO estimates that duration @
Lville will shorten to ~12 hrs.
& 6-8 hrs. @ Evansville due to
dilution effects

ORSANCO reps @ LWC to monitor their
ability to tx water & detect plume
- plans are to travel to ~~Louisville~~ Evansville to
assist w/ plume monitoring @ Evansville Water Co.

KDEP: possible that river ops are
impacted by winter wx in Louisville

KDEP: data suggests sag in DO
from 10+ to (3) mg/L
- possible that equipment is causing
false positives



1/17/14:
from Rengao Song LWC
1.2 ppb @ 1100
2.8 ppb @ 1230
MQL @ 3 ppb
estimates peak to arrive @ 1700-1800 hrs
tonight.
from M. Unthank, USGS
Tom Ruby (502) 693-8595 (c)
crews went out today; coordinate
w/ crews regarding P/U, may be late

1:15 hrs. m'tg.

ORSANCO:
Henderson, KY - plans to shut down intake
upon plume arrival for at least 12 hrs.
LWW - able to heat samples - still detect MCHM 12 hrs. lie
LWC ~~unpreserved~~ samples have 1 days holding time
(LWW re-ran sample testing originally
@ 9 ppb, and 2 day later - now detect)
preservative may keep analytes from
degrading.

1/17/14: 1615 hrs. m'tg.
KDEP:
1/17: No boat ops today due to wx
LWC samples were taken
1/18: (projected)
• Westport, Louisville, Brandenburg, > river
Cannellton L&D
• LWC, Henderson Water Co.
1/19: (projected)
• Cannellton L&D, Owensboro, > river
Newburgh L&D, Mt. Vernon, IN
• Henderson Water Co.
1/20:
• Newburgh L&D, Mt. Vernon, IN > river
Carrsville, Area
• Henderson, Sturgis, Morganfield intakes
1/21:
Mt. Vernon, Carrsville, Smithland, > river
Brookport L&D
• Sturgis, Morganfield, Paducah, USEC intakes

LWC reports that ~~LWC~~ peak MCHM concentrations of 3 ppb were observed at 1600 hrs. today

6 hrs. OT



1/18/14:
0900 hrs.:
teleconference w/ EPA OSC & ERT
(Matlock, Smith, Renninger, Gilbert)

all MCHM off site
one corner of site had high MCHM conc. in soil
"super sucker" can pull all residual MCHM from soil
- No add'l releases to Elk River are anticipated.

send Jack Kelly any updates (also Renninger / Turner) that R4 gets from ORSANCO, KDEP.

From ORSANCO:
• via Eastman Chemical (m'fr.)
10 day 1/2 life for Crude MCHM in $H_2O$
• ORSANCO distributing LWC prelim data w/ IN, ILL DW p'gms @ state level.
Evansville Water coordinating w/ LWC on findings
- Evansville will ~~tx~~ plume; unsure if they will try to detect upstream in advance