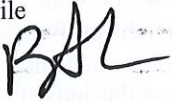


MEMO

Date: 9/1/21
To: Chamness SDP File
From: Brian Lee, ES 
Facility: Chamness SDP, Permit # 90-SDP-10-97P-COM
RE: Derecho Mulch Fire, 8/23-27, 30/2021 visits, complaint #29884

8/23/21 observations

Wind was from the east/SE at ~5-10 mph (10:30 am). West ½ of the derecho pile had been burned and continued to smoke significantly. This included the screened compost and overs piles on top of the derecho mulch. This also included the log pile area, immediately east of the central lagoon. The fire had extended to south of the wax storage/concrete block area. The east ½ (and east facing slope) of the derecho mulch pile had not been burned at this time. Regarding on site staff, there was no activity taking place to/on the burning area. No leachate being applied and no equipment pulling the material apart. I spoke with Tyler (staff) and he indicated that the other staff had been on site overnight attempting to contain the fire with water. The (Eddyville) fire department was reportedly on site on Sunday to put out the grass fires that were south of the pile. The fire was thought to have started in the log pile area Sunday afternoon. I spoke with Richard Swan (site manager) via phone and he told me they were getting a plan together to combat the fire. We discussed getting a plan of attack implemented as soon as feasible. Gary Chamness was not on site, but reportedly had been on site earlier that day. Smoke continued to blow west/northwest from the site, towards the intersection of 160th Street (to the north) and County Road T61 (to the west). I conveyed my observations to Kurt Levetzow (DNR FO6 Supervisor).

8/24/21 observations

The smoke could be detected from many miles away. Smoke was blowing directly north into Eddyville. Wind was from the south at 10-15 mph (11:10 am). Most of the mulch pile had now either been burned or was actively burning. Most of the east slope was on fire and smoking significantly. The western upper plateau/flat portion (south of the silos) was on fire as well. The western section of the mulch pile was smoking some, but little open flame was observed. I did not observe any site activity regarding application of water or leachate to the mulch pile. I did not observe any staff/equipment separating mulch or spreading it out. Some fire had spread south into the grass area southwest of the east lagoon. No compost material on the pad was determined to be on fire at this time. Richard and Lon (staff) had reportedly left the site to retrieve a bulldozer to aid in separating the mulch. My observations were again conveyed to Kurt Levetzow.

8/25/21 observations

The smoke was less today. Approximately ½ inch of rain overnight/early morning. Wind was from the east/NE at about 5 mph (10:15 am). The bulldozer had arrived, but was sitting unutilized at the house to the southwest (Richard's House). The leachate irrigation unit was being utilized to wet down the east facing slope. Leachate from the east lagoon was being pumped up to the gun. The excavator was pulling back mulch and opening up areas that could be doused with leachate. The plateau portion was not on fire and was not smoking. The west ½ and east and south facing slopes continued to smoke/burn. The western portion of the burned mulch was not smoking as much as either of the previous 2 days. The screener unit had burned up (rubber belts/tires) and compost rows/piles on the southeast section of the pad were smoking in multiple spots. Staff was utilizing the end-loader to take wet compost slop and apply that to the smoking/burning compost on the pad. A dam had been created to contain the leachate downslope of the east facing mulch slope. That dam was built up with more soil and channels cut to drain the leachate into the east lagoon at the time of my visit. The dam and channels were effective in preventing leachate runoff. A single Chamness staff monitored the pump, hose, and dam. The bulldozer was eventually utilized create a channel at the toe of the mulch slope to guide any leachate back to the pooled/dam area. The bulldozer later pushed a large path from top of the mulch plateau down to the toe of the mulch slope. The smoke was significantly less in the area that was pushed down. This new exposed mulch appeared unburned. This pushing method was repeated multiple times up and down the slope. This was mostly achieved on the southeast/south facing slope area. The excavator continued to open up areas to be separated and doused with leachate. Early afternoon, the wind had shifted, now blowing northeast. I spoke with Karen Grimes (DNR Media) regarding a press release. I also made other observations from the pad and around the pad/facility regarding current status of compost operations and leachate management. Kurt Levetzow arrived on site about 1:00. Kayla Lyon (DNR Director) and Alex Moon (Deputy Director) arrived on site at about 1:30. Kurt and I escorted them around the site. At least 6 Chamness staff were on site and at least 4 staff were actively assisting the fire efforts. The wind shifted again, blowing north at ~5 mph in the afternoon.

8/26/21 observations

The smoke today was about the same as the previous day (possibly slightly less). Wind was out of the east/SE at 5-10 mph (11:45 am). Leachate continued to be applied to the east facing mulch slope via irrigation. A single Chamness staff continued to monitor the pump, hose, and dam. The east slope had pockets burning/smoking. The dam continued to hold and no leachate migration beyond the containment area was observed. A significant amount of mulch had been spread out in a couple long rows/piles along the southern edge of the pile. A ~15-foot-deep/wide hole had been dug on the southern side, past the end of the pile (uncertain sure if this was for soil use and/or leachate collection). The excavator and end-loader continued to pull part material. The bulldozer was not in operation due to an ignition switch failure (part was being retrieved reportedly). The west portion of the mulch continued to smoke, but was not flaming significantly. Very minimal smoke was detected crossing County Highway T61 (to the west). I conveyed the status to Supervisor Levetzow. After about an hour on site, wind conditions switched from the northwest at about 15 mph. A front/rain was passing through. Smoke and flame increased on the southwest portion during this intensification in wind. This was at about 1 pm and the staff had stopped for lunch. I went to the office and relayed the info to staff that the wind had switched and the flames had increased. I recommended they move the excavator on the south side as it was directly in a heavy smoke plume. Staff moved back to the south side and continued working shortly after. Flames had also increased near the wood/log storage area east of the central lagoon. A quick rain event followed, lasting about 15 minutes (maybe a couple tenths of an inch of rain). Some smoke reduction was observed at this time.

8/27/21 observations

Wind was from the south/southeast at approximately 5 mph (12:00 pm). At least 6 staff were on site (5 on fire related work). The smoke was about the same as the previous day. The east slope was being worked with the excavator. A mulch terrace had been created to allow the excavator to work the slope. Leachate application continued in that same area and it now was ponded in the terrace area towards the pad. The leachate dam and recirculation process were still effective. Staff have utilized throttle control on the pump to change the arc of the leachate being applied. The eastern portion was not smoking or smoldering any longer. The mulch piles, that were pulled out over the previous days, on the south and southwest portions had been spread out. The west ½ continued to smoke somewhat, but overall smoke was less than previous days. Some hot spots on the pad were being turned and put out by the end loaders. The loaders were also utilizing wet compost mix to cover hot spots up top on the screened compost pile (western ½). The water tank was being filled in Eddyville and that water was being sprayed on the log pile and ash east of the central lagoon. Per my conversation with Richard, the ash needs to be knocked down so that equipment can get in that western area safely. Water and leachate will be utilized. Leachate use is planned to be switched to the central lagoon. Freeboard is (extremely) minimal and it is closer to the western portion. I reminded him to be able to capture and recirculate no matter where it is applied. A combination of spreading out the hot spots and covering certain areas will be implemented. Richard indicated that the east and west ½ may be separated to attempt to keep the fire from restarting on the east ½. The excavator had switched to the log pile area where water was being applied. One of the end loaders was picking up hot mulch piles on the southwest portion and spreading them out to further to the southwest. Prior to departing, I conveyed the site status to Kurt Levetzow.

8/30/21 observations

Wind was from the east at about 5 mph (1:45 pm). Leachate application was not operational, but had been moved to the southwest section. The east lagoon was still being utilized. Berms/dams had been created downslope of the leachate application area, beyond the toe of the mulch slope. Leachate was ponded and had not migrated beyond any of the structures created (no leachate migration detected at 160th crossing or at Missouri crossing either). A trash pump was in place to recirculate the leachate collected behind these new dams. The east ½ was not smoking and the log pile had been covered with soil. Overall, the smoke was less than Friday (8/27). Additional soil cover had been implemented on the southwest portion as well. The unscreened pile on top of the southwest mulch area was still smoking in a few areas. Compost rows on the pad did not appear to be smoking or smoldering. The bulldozer, end loaders, and excavator were idle at the shop as the staff were at a late lunch. The staff I spoke with indicated they had worked all weekend and got most of the fire suppressed. Leachate application (and pump monitoring) started a short time later and the other staff arrived back from lunch. I spoke with Richard and he indicated that the southwest area would be the focus. Richard estimated most of the hot spots would be covered/extinguished today. Leachate application to calm the ash was needed first, then he would be pushing through areas to spread out the material to extinguish anything burning. The whole pile of mulch is planned to be sloped and covered with soil once all the fire is out. Another berm would be created downslope of the exiting pile to contain any leachate. Leachate land application would also continue from the central lagoon once the fire is out. After I spoke with Richard, he and a couple other staff mobilized equipment to the active fire area. At least 5 staff were now working on the fire. A smoking hot spot was observed on the south side and it went from smoking to flaming up very quickly. The excavator and dozer were utilized to separate the material and push through the area. The spot appeared extinguished after a few minutes. The focus of the operation returned to the southwest portion. The bulldozer moved mulch and covered the southwest slope with unburned material as leachate was applied. Large plumes of ash rose when disturbed, but covering and pushing up non-burning/wetter mulch material in and over the areas appeared to minimize additional burning. A staff at the trash pump was applying leachate from below and the irrigation gun was utilized from above/top. The same spot on the south side flared up again about ½ hour later and the bulldozer went back and pushed a significant amount of mulch down slope to extinguish the fire. I conveyed the site status to Kurt Levetzow prior to leaving.

8/23/21



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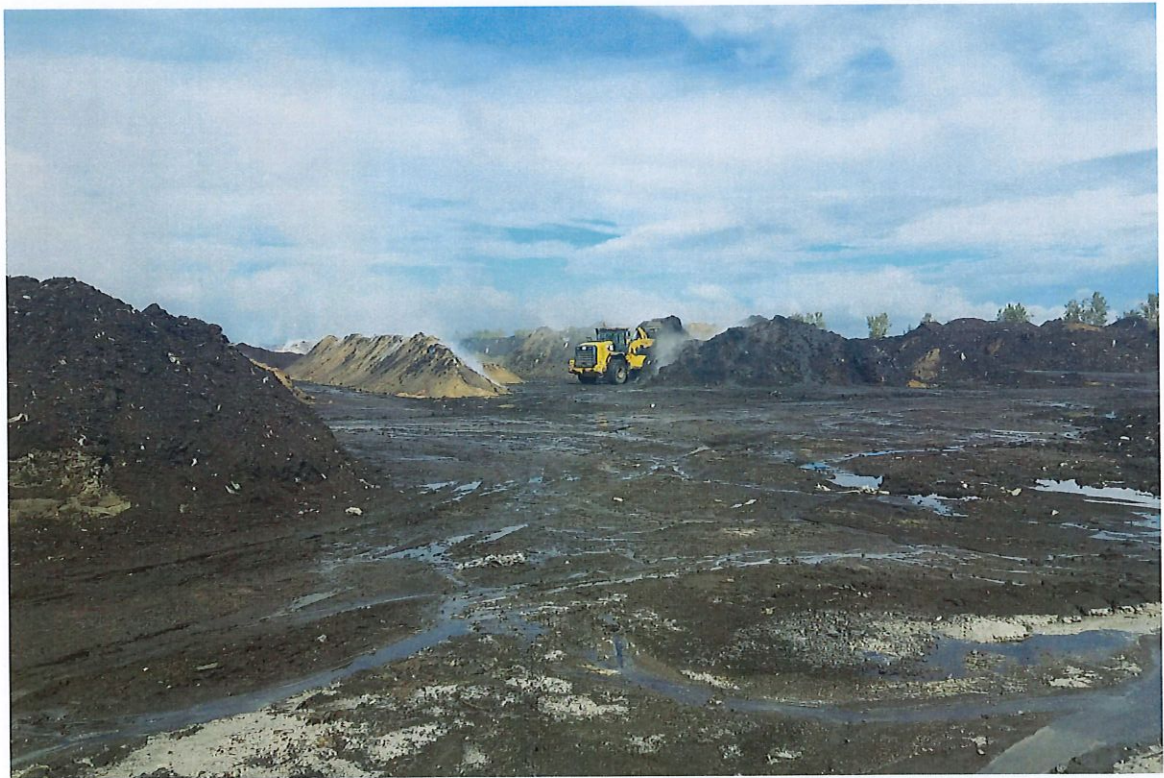


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