



Spill Characteristics and DNR Enforcement Efforts at Green Hills CAFO, 1995–2021

SPILL AND ENFORCEMENT TOTALS

SPILL CHARACTERISTICS						MISSOURI DNR ENFORCEMENT EFFORTS				
Est. Volume of Reported Spills (gal.) ¹	Total Reported Spills	Reported Spills w/ Unknown Volume	% Spills w/ Unknown Volume	Avg. Spill Volume (gal.) ²	Avg. Annual Spill Volume, Past 30 Yrs. (gal.) ²	Letters of Warning	Notices of Violation	Spills w/o Onsite Response	% Spills w/o Onsite Response	Volume of Spills w/o Onsite Response (gal.) ¹
118,700	25	4	16%	5,652	3,957	0	5	8	32%	15,500

¹ These totals do not include reported spills of unknown volume. For details about spill calculation, see the Methodology section of the Rap Sheet (sraproject.org/SmithfieldMORapSheet)

² Average volumes were calculated for known spills (i.e., excluding spills of unknown volume).

GREEN HILLS—REPORTED WASTE SPILLS AND VIOLATIONS

DATE	ESTIMATED GALLONS SPILLED	DESCRIPTION
8/30/1995	4,000	Agency records indicate overapplication and runoff of wastes into Spring Creek resulted in a fish kill (at least 4,949 aquatic mortalities along .75 miles of the stream). Multiple emergency dams were constructed to contain the spill. An anonymous caller notified DNR of the spill.
9/20/1995	unknown	Agency records indicate that a DNR inspector observed, "A wet area was noted on the back side of the lagoon at site #7 due to bleed back from an irrigation line valve resulting in a trickle discharge from an irrigation hookup pipe. A Notice of Violation was not issued in this instance...since the discharge was primarily absorbed by the soil...trash and animal waste solid matter was noted at the base of the cleanout riser immediately prior to the lagoon at site #2. It was apparent the trash was the result of the line being cleaned. All trash and solid matter should be removed and properly disposed of. Trash was also noted in most of the lagoons at these sites. Trash, gloves, etc. should not be allowed to enter the piping to the lagoon. Any foreign material of this nature could very likely lead to a blockage and bypass situation. It is requested that site managers be explicitly instructed to cease disposal of materials in this manner...We would anticipate this material to be removed prior to our next visit at the facilities...Due to observation of the lagoons and past waste handling practices, it is readily apparent that PSF has outgrown its capacity to provide proper quality control oversight of the animal waste management program. It is our understanding training is provided to employees on proper operation of land application equipment. It is imperative that the adequacy of the training be reevaluated and provided to all employees directly involved in waste management. An evaluation must also be conducted of land application oversight procedures to ensure waste is being properly land applied in accordance with all applicable laws, regulations, and permit conditions." Facility site #7 was determined to be in noncompliance.
10/2/1995	unknown	Agency records indicate a spill from waste pipeline.

5/15/1997	5,000	NOV issued: Agency records indicate an underground waste pipeline ruptured and spilled wastes into Spring Creek resulting in a fish kill (at least 150 aquatic mortalities along 1/8 mile of stream).
12/8/1997	2,000–3,000	Agency records indicate a plugged pipeline spilled wastes out of barn fans and into emergency containment. DNR did not respond on site to investigate the incident.
12/31/1997	2,000	NOV #0530NE: Waste spilled out of the building through emergency containment and into Spring Creek resulting in a fish kill. Crews built multiple emergency dams to contain the spill.
6/12/1998	300–400	Agency records indicate a hay crew cut a waste pipeline in three places causing a spill.
4/4/2000	-----	<p>"NOV #0834NE: "Failure to Perform Stormwater Monitoring Within 24 Hours of Land Application"</p> <p>NOV #0835NE: "Failure to Report Other Chemicals Used at the Facility"</p> <p>NOV #0838NE: "Failure to Submit Accurate Discharge Monitoring Reports (DMRs) of the July 28, 1999, Discharge from Whitetail Facility"</p> <p>DMR Report on the 1999 Annual Records Review: "PSF failed to accurately report the required parameters from wastewater discharges as required by the existing permit. During a July 28, 1999, discharge of processed waste into Sandy Creek from the Whitetail facility, NERO [DNR Northeast Regional Office] staff collected samples for ammonia. The results of the NERO samples at the down gradient property boundary were nearly 500 times as high as those listed in the [company] report for the same day at the same sample location."</p> <p>Ten of eleven facilities reviewed were determined to be in noncompliance.</p>
4/26/2000	-----	U.S. EPA NOV issued: U.S. EPA issues PSF a Notice of Violation of the federal Clean Air Act alleging that PSF annually emits several hundred tons of potentially hazardous air pollutants including hydrogen sulfide and particulate matter from its hundreds of confinement buildings and open-pit waste lagoons. USEPA also cites PSF's failure to apply for air pollution permits as required by law.
8/2/2001	300–400	NOV #1066NE: A traveling irrigation gun got stuck in a waste disposal field and caused waste runoff and a spill into a tributary of Spring Creek resulting in a fish kill. DNR investigators also documented "notification of the discharge was not made as soon as possible and no later than 24 hours to the department."
11/5/2001	100	Agency records indicate a leaking underground pipeline surfaced wastes into a cornfield and an adjacent county road right of way.
11/7/2001	-----	<p>"Agency records indicate a DNR investigator wrote, "as discussed the NERO [Northeast Regional Office] has identified several occasions in which the land application map was not current. I did a quick review of the individual [inspection] files for the Site Specific Permits at PSF and found the following...</p> <p>Inspection Date / Site</p> <p>11-06-01 Terre Haute—land application over last four days not reflected on map</p> <p>10-11-01 Hedgewood—several days of application in new season, no map yet on site</p> <p>08-08-01 Whitetail—prior days (sic) application by contract app not reflected on map</p> <p>08-01-01 Green Hills—land map could not be located by PSF env. staff to inspect</p> <p>06-11-01 Peach/Perkins—map was not current from October 2000 app on F1</p> <p>08-28-00 Somerset—map was not current."</p>
3/6/2003	50,000–60,000	Agency records indicate a pipeline break spilled wastes into emergency containment.
11/30/2004	>1,000	Agency records indicate a plugged pipeline spilled wastes into emergency containment.
8/20/2005	3,000	Agency records indicate a ruptured pipeline between a barn and lagoon spilled into emergency containment.
9/28/2005	1,000	Agency records indicate a plugged pipeline in a barn spilled wastes into emergency dams. DNR did not respond on site to investigate the incident.

5/24/2006	>1,000	Agency records indicate that due to an improperly closed valve, the recycle pump pipeline ruptured and spilled wastes out of the pump house and into emergency containment.
6/8/2007	1,000	Agency records indicate a plugged pipeline between the barns and lagoon spilled wastes into emergency containment.
6/9/2007	30,000	Agency records indicate a waste irrigation pipeline riser blew off and spilled wastes into a stream and freshwater lake and onto neighboring property. Multiple emergency dams were constructed to contain the spill.
3/5/2011	5,000	Agency records indicate a plugged pipeline between the barns and lagoon spilled wastes into emergency containment. DNR did not respond on site to investigate the incident.
6/15/2011	1,000	Agency records indicate a plugged drain pipeline in Barn 7 spilled wastes from the barn into emergency containment. DNR did not respond on site to investigate the incident.
8/31/2011	-----	Agency records indicate a DNR inspection noted, "Ensure that feed spills are removed and properly disposed when discovered. Remove the piece of lagoon cover discovered in the irrigation basin at the AND Site."
9/3/2011	1,500	Agency records indicate a plugged pipeline between the barns and lagoon spilled wastes into emergency containment. DNR did not respond on site to investigate the incident.
12/7/2011	-----	Agency records indicate a DNR inspector documented, "Feed spills were noted at Site #4, Barn 1 and Site #9, Barn 5. Other smaller feed spills were observed at various sites. Ensure that feed spills are removed and properly disposed when discovered. Fill in the animal dens on the lagoon berms with compacted clay and reseed the areas at Site #7, 9, and 11."
12/14/2011	unknown	Agency records indicate an employee inadvertently released wastewater from an emergency containment structure. An emergency dam was constructed to contain the spill.
3/28/2012	-----	Agency records indicate a DNR Annual Records Review of PSF records noted, "The second item of the cover page was discussed, which is the estimated amount of manure, litter and wastewater generated in the previous twelve months. During the review of the individual facilities, it was found that this number was often higher than the design flow listed on the facility's Missouri State Operating Permit...Total gallons land applied was higher than the design flow."
3/28/2012	-----	Agency records indicate a DNR Annual Records Review of PSF records noted that the company failed to report the suspected causes of high ammonia readings [indicative of hog waste] in the company's emergency containment systems as required by their Missouri State Operating Permits. Nine facilities were determined to be in noncompliance.
5/17/2012	unknown	Agency records indicate a DNR inspector documented, "At site #8, three risers were observed that had residue from wastewater on the sides of the risers. [PSF employee] stated that a line had plugged the previous day, pushing wastewater out of the risers... Ensure that spills around risers are remediated as soon as they are observed."
11/12/2012	1,000	Agency records indicate a plugged pipeline between the barns and lagoon spilled wastes into emergency containment. DNR did not respond on site to investigate the incident.
2/14/2013	-----	Agency records indicate a DNR inspector documented, "Secondary Containment Monitoring records did not have the estimate (sic) gallons of process waste or storm water that is released or pumped from the secondary containments. Exhibit 'A' Crops Planted and Expected Yields did not have gallons applied to fields."
3/24/2013	1,000	Agency records indicate a plugged pipeline between the barns and lagoon spilled wastes into emergency containment. DNR did not respond on site to investigate the incident.
8/8/2013	2,500	Agency records indicate a plugged pipeline in barn 5 spilled wastes into emergency containment. DNR did not respond on site to investigate the incident.

9/25/2013	400	Agency records indicate a DNR inspector observed "pooled water in the storm water diversion of the lagoon, near the pump house at Site #3...Ensure that permit conditions are followed in the cleanup of the pooled wastewater at Site #3...Ensure that the riser cap is replaced at Site #11."
12/10/2013	-----	Agency records indicate a DNR inspector noted, "Ensure that the erosion is monitored along the production buildings and the erosion areas filled at Sites 2 and 9 where the footers of the production buildings are exposed."
12/3/2015	-----	Agency records indicate a DNR inspector noted, "Ensure the seal in the cap for the secondary containment pipe is replaced at site 5. Ensure that the erosion along the production buildings does not adversely affect the production buildings. Evaluate the sloughing of soil near the toe of the berm at site 3 and take appropriate steps to stabilize the area."
6/7/2019	-----	Agency records indicate a DNR inspector noted, "Ensure that feed spills are removed and properly disposed when discovered. Ensure mortalities are properly managed."
8/29/2019	-----	Agency records indicate a DNR inspector noted, "A dead hog that was in the advanced stage of decomposition was observed on top of the mortality transfer structure. Ensure that mortalities are properly managed in accordance with Missouri State Operating Permit #MO-0118486 and the facility's Nutrient Management Plan... Ensure that land application does not occur within 24 hours of a forecasted rain event...Ensure that feed spills are removed and properly disposed when discovered. Ensure that trash is removed from the lagoons as discovered and properly disposed."
7/8/2020	-----	Agency records indicate a DNR inspector noted, "Ensure that feed spills are removed and properly disposed when discovered."
10/29/2020	-----	Agency records indicate a DNR inspector noted, "Ensure that feed spills are removed and properly disposed when discovered."
2/18/2021	-----	Agency records indicate a DNR inspector noted, "Ensure that feed spills are removed and properly disposed when discovered. Ensure that trash is removed from the lagoons as discovered and properly disposed."