

**IOWA DEPARTMENT OF NATURAL RESOURCES  
LAND APPLICATION (LAN) INSPECTION FORM**

<b>Permit No.:</b> -SDP-       -       P-LAN	<b>County:</b>
<b>Facility Name:</b>	<b>Facility Address:</b>
<b>Phone Number:</b>	
<b>Responsible Official:</b>	<b>Mailing Address:</b>
<b>Phone Number:</b>	
<b>Person(s) Present:</b> 1) 2) 3)	
<b>Date of This Inspection:</b>	<b>Date of Last Inspection:</b>

\*Be advised your facility may require, due to either SIC code or onsite management practices, an NPDES General Permit #1 (Stormwater permit).

<b>IAC 567 Chapter 121.6(1): Permit by Rule Operating Requirements</b>		<b>Yes</b>	<b>No</b>	<b>NA</b>
<b>Permit by Rule Operating Requirements</b>	<b>121.6(1)“a”(1)</b> Was the maximum application rate in excess of two tons per acre per year, measured on a dry weight basis? <i>(Note: This rate must be less if this would significantly exceed nutrient requirements of the crop being produced or would have heavy metal concentrations that would be detrimental to crop production)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(2)</b> Was the sludge or solid waste applied to land that contained the following soil textures: Sand, Loamy Sand, or Silt?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(3)</b> Did the land application sites have the soil pH maintained between 6.5 and 8.4 if the solid waste had cadmium levels up to 15 mg/kg. <i>(Note: The soil pH may be maintained below 6.5 but not below 6.0 if the cadmium level is 8.0 mg/kg or the sludge has been stabilized to a pH of 10-12. If the soil pH is below these levels, it is acceptable to use agricultural lime to increase the pH to an acceptable level prior to land application of sludge)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(4)</b> The department recommends that all sludge be injected on the contour or applied to the surface and mechanically incorporated into the soil as soon as possible but not later than 48 hours after application. Has this practice been utilized in this operation? <i>(Note: Not following this practice does not constitute a violation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(5)</b> If the land application site exceeds the soil loss limits established by the county soil conservation district, was the solid waste injected on the contour or surfaced applied and mechanically incorporated into the soil within 48 hours after application? Was the sludge applied to ground greater than a 9% slope?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(6)</b> If the land application site is subject to flooding more frequently than once in ten years, was the sludge injected or surface applied and mechanically incorporated into the soil within 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(7)</b> If the solid waste was applied to frozen ground, was the sludge limited to ground of less than 5% slope?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>121.6(1)“a”(8)</b> If the sludge was applied within 200 feet from a stream, lake, sinkhole or tile line surface intake located down gradient of the land application site, was it injected or surface applied and mechanically incorporated into the soil within 48 hours after application?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IAC 567 Chapter 121.6(1): Permit by Rule Operating Requirements (Cont'd)		Yes	No	NA																																												
Permit by Rule Operating Requirements	<p>121.6(1)“b”</p> <p>Did analysis of the solid waste show that it met the following levels:</p> <table border="1"> <thead> <tr> <th>Constituents</th> <th>Levels</th> <th colspan="2">Cumulative Loading Rate</th> </tr> </thead> <tbody> <tr> <td>Arsenic</td> <td>41 mg/kg</td> <td>41 kg/ha</td> <td>36 lb/ac</td> </tr> <tr> <td>Cadmium</td> <td>39 mg/kg</td> <td>39 kg/ha</td> <td>34 lb/ac</td> </tr> <tr> <td>Chromium</td> <td>1200 mg/kg</td> <td>3000 kg/ha</td> <td>2670 lb/ac</td> </tr> <tr> <td>Copper</td> <td>1500 mg/kg</td> <td>1500 kg/ha</td> <td>1335 lb/ac</td> </tr> <tr> <td>Lead</td> <td>300 mg/kg</td> <td>300 kg/ha</td> <td>267 lb/ac</td> </tr> <tr> <td>Mercury</td> <td>17 mg/kg</td> <td>17 kg/ha</td> <td>15 lb/ac</td> </tr> <tr> <td>Molybdenum</td> <td>75 mg/kg</td> <td>75 kg/ha</td> <td>66 lb/ac</td> </tr> <tr> <td>Nickel</td> <td>420 mg/kg</td> <td>420 kg/ha</td> <td>373 lb/ac</td> </tr> <tr> <td>Selenium</td> <td>36 mg/kg</td> <td>100 kg/ha</td> <td>89 lb/ac</td> </tr> <tr> <td>Zinc</td> <td>2800 mg/kg</td> <td>2800 kg/ha</td> <td>2490 lb/ac</td> </tr> </tbody> </table> <p><i>(Note: If the waste has other toxic constituents, the toxic constituents shall not be in excess of levels where there is a threat to human, animal, or plant life as determined by the department)</i></p>	Constituents	Levels	Cumulative Loading Rate		Arsenic	41 mg/kg	41 kg/ha	36 lb/ac	Cadmium	39 mg/kg	39 kg/ha	34 lb/ac	Chromium	1200 mg/kg	3000 kg/ha	2670 lb/ac	Copper	1500 mg/kg	1500 kg/ha	1335 lb/ac	Lead	300 mg/kg	300 kg/ha	267 lb/ac	Mercury	17 mg/kg	17 kg/ha	15 lb/ac	Molybdenum	75 mg/kg	75 kg/ha	66 lb/ac	Nickel	420 mg/kg	420 kg/ha	373 lb/ac	Selenium	36 mg/kg	100 kg/ha	89 lb/ac	Zinc	2800 mg/kg	2800 kg/ha	2490 lb/ac	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	121.6(1)“c”(1)	Did the nitrogen that was available from the waste and any other sources exceed the acceptable agronomic application rates for the site and crops involved during that year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																											
	121.6(1)“c”(2)	Did the phosphorus and potassium that was available from the waste and any other sources exceed the acceptable agronomic application rates for the site and crops involved during that year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																											
121.6(1)“d”	Does the waste have a sodium absorption ratio in excess of levels where there is a threat to plant life? If high sodium absorption ratios are suspected, analytical testing may be required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“e”	Does the waste being land applied contain pathogens?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“f”	Does the waste have any direct contact with a waste stream with the following listed organics: Petroleum products, organic solvents, pesticides, pharmaceuticals, polychlorinated biphenyls (PCB's)? Does the waste originate from a process that may release the previously mentioned compounds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“g”	Will the waste be readily present in a visual analysis of a random sample collected two years following application?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“h”	Is the solid waste putrescible, or is incorporated (or otherwise managed) to prevent runoff and odor problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“i”	Was the waste applied within 200 feet of an occupied residence or within 500 feet of a well?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“j”	Is the waste analyzed properly from the process it originated from?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“k”	Is a long-range program plan being maintained for generators that land apply their waste routinely?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“l”(1)	If the waste is being supplied to other persons for land application, did the generating facility inform them of the applicable requirements of the waste disposal program, 567—subrules 101.3(2) and 121.6(1)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												
121.6(1)“l”(2)	If the generating facility determined that the person being supplied waste for land application is not complying with applicable requirements of the waste disposal program or the land application criteria did the generating facility work with them to obtain compliance with the requirements. <i>(Note: If subsequent compliance cannot be achieved, the generating facility shall not supply additional waste to the person)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																												

IAC 567 Chapter 121.6(1): Permit by Rule Operating Requirements (Cont'd)		Yes	No	NA	
Permit by Rule Operating Requirements	121.6(1)"l"(3)	Did the generating facility inform all persons involved in waste disposal operations of the potential health hazards associated with waste disposal, including the cautions and recommended practices which should be followed to minimize these hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.6(1)"l"(4)	Did the generating facility maintain records of the sample analysis and waste disposal operations to document compliance with 567—121.6(455B)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.6(1)"l"(5)	Was the waste applied to land subject to use by the general public (e.g., golf courses, parks)? <i>(Note: If yes, public access to the waste application site shall be restricted for a period of one month after waste application. In no case shall waste be applied to areas where direct body contact with the soil is likely (e.g., school yards, playground areas, picnic areas))</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.6(1)"l"(6)	Was the waste applied to land for the commercial production of human consumption food crops?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.6(1)"l"(7)	Was the solid waste applied to land where crops being grown will be grazed by or fed to livestock within two months of sludge application, or where cereal grains will be harvested within two months of sludge application? <i>(Note: If yes, the sludge shall be injected or shall be applied to the surface and mechanically incorporated into the soil)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.6(1)"m"	Before the land application took place, was the department notified in writing of the location of the disposal operation? <i>(Note: This notice shall also contain the legal description of the site, the landowner, the responsible official, the quantities and type of waste (including chemical analyses which the department may require to adequately define the waste))</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comments:**

IAC 567 Chapter 121.7(1)"c": Permitted Land Application Operating Requirements		Yes	No	NA	
Permitted Operating Requirements	121.7(1)"c"(1)	Are the general public and livestock restricted from the site during sludge disposal and a minimum of two months after land application of solid waste? <i>(Note: This requirement is waived if a permit condition specifies otherwise)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.7(1)"c"(2)	Can the permit holder provide evidence that the pH of the surface horizon or plow layer is maintained above 6.5? <i>(Note: This requirement is waived if a permit condition specifies otherwise)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.7(1)"c"(3)	Was the land application site used for disposal of solid waste during or immediately preceding expected: rains or other occasions when runoff may result (unless subsurface injection methods are utilized); high groundwater conditions; or flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.7(1)"c"(4)	Were special precautions taken to avoid runoff if land application took place on frozen or snow covered ground?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.7(1)"c"(7)	Were laboratory analyses of the solid waste and site soils performed and submitted as stipulated in the permit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	121.7(1)"c"(8)"	Were records and reporting requirements of site usage maintained and submitted to the department as stipulated in the permit? <i>(Note: This may include an annual Certified Professional Agronomist Report due on November 1<sup>st</sup> and Quarterly Tonnage Reports)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comments:**

Summary of Requirements:		Compliance Date:
1)		
2)		
3)		
4)		
5)		

Summary of Reminders:	
1)	
2)	
3)	
4)	
5)	

Summary of Recommendations:	
1)	
2)	
3)	
4)	
5)	

<b>Inspector:</b> _____ <b>Date:</b> _____	<b>Reviewer:</b> _____ <b>Date:</b> _____
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**Facility Photographs (if applicable)**
