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| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | Industrial By-Product Annual Report  Industrial By-Product (IBP) Program  *Doc Type: Permitting Annual Report* |

## **Instructions:** This form must be completed and submitted annually by **December 31** following the end of the cropping year on August 31, or according to an individual permit deadline. Report only on the form, transcribing from other forms and reports as necessary. Remember to report in the units of measure indicated on the form, converting values from laboratory analytical reports as necessary. Attach to the form copies of laboratory analytical reports for industrial by-product (IBP) samples. Email the completed form to the Water Quality Submittal Center at [wq.submittals.mpca@state.mn.us](mailto:wq.submittals.mpca@state.mn.us). All required information, including signatures, must be included for the form to be considered complete and in compliance with permit requirements. More detailed instructions are provided on page 4.

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| --- | --- | --- | --- |
| **Cropping year: September 1,** |  | **through August 31,** |  |

**Facility Information**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Facility name: | | |  | | | | | | | NPDES or SDS Permit number: | |  | |
| Form prepared by: | | | |  | | | | Preparer’s phone number: | | | |  | |
| Mailing address: | | | |  | | | | | | | | | |
| City: |  | | | | | | State: |  | | | Zip code: | |  |
| Phone: | |  | | | Fax: |  | | Email: |  | | | | |

**Check here if industrial by-products were** not **land applied or transferred during this cropping year:**

# Total Quantity of IBP Land Applied or Transferred to Certified or Approved Storage

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **IBP waste stream code  *(e.g., WS 301)*** | **Total IBP quantity for waste code** | **Units** | **Destination** | **Certified or approved storage site name or description only  *(Do not list separate land application (LA) station applications.)*** |
|  |  | gals  wet tons | Transferred to  Land applied |  |
|  |  | gals  wet tons | Transferred to  Land applied |  |
|  |  | gals  wet tons | Transferred to  Land applied |  |
|  |  | gals  wet tons | Transferred to  Land applied |  |
|  |  | gals  wet tons | Transferred to  Land applied |  |
|  |  | gals  wet tons | Transferred to  Land applied |  |

**Comments**

|  |
| --- |
|  |

**IBP Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| **IBP waste stream code (e.g., WS 301):** |  | **Required sampling frequency:** |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Average** |
| **Sampling date** |  |  |  |  |  |  |  |
| **Date sent to lab** |  |  |  |  |  |  |  |
| **Chloride (mg/kg)** |  |  |  |  |  |  |  |
| **Ammonia nitrogen (%)** |  |  |  |  |  |  |  |
| **Kjeldahl nitrogen (%)** |  |  |  |  |  |  |  |
| **Oil and grease (mg/kg)** |  |  |  |  |  |  |  |
| **pH (SU)** |  |  |  |  |  |  |  |
| **Phosphorus (%)** |  |  |  |  |  |  |  |
| **Sodium (mg/kg)** |  |  |  |  |  |  |  |
| **Total solids (%)** |  |  |  |  |  |  |  |
| **Total volatile solids (%)** |  |  |  |  |  |  |  |
| **List results of other parameters required by permit** |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **IBP waste stream code (e.g., WS 301):** |  | **Required sampling frequency:** |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Average** |
| **Sampling date** |  |  |  |  |  |  |  |
| **Date sent to lab** |  |  |  |  |  |  |  |
| **Chloride (mg/kg)** |  |  |  |  |  |  |  |
| **Ammonia nitrogen (%)** |  |  |  |  |  |  |  |
| **Kjeldahl nitrogen (%)** |  |  |  |  |  |  |  |
| **Oil and grease (mg/kg)** |  |  |  |  |  |  |  |
| **pH (SU)** |  |  |  |  |  |  |  |
| **Phosphorus (%)** |  |  |  |  |  |  |  |
| **Sodium (mg/kg)** |  |  |  |  |  |  |  |
| **Total solids (%)** |  |  |  |  |  |  |  |
| **Total volatile solids (%)** |  |  |  |  |  |  |  |
| **List results of other parameters required by permit** |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **IBP waste stream code (e.g., WS 301):** |  | **Required sampling frequency:** |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Sample #** | **Average** |
| **Sampling date** |  |  |  |  |  |  |  |
| **Date sent to lab** |  |  |  |  |  |  |  |
| **Chloride (mg/kg)** |  |  |  |  |  |  |  |
| **Ammonia nitrogen (%)** |  |  |  |  |  |  |  |
| **Kjeldahl nitrogen (%)** |  |  |  |  |  |  |  |
| **Oil and grease (mg/kg)** |  |  |  |  |  |  |  |
| **pH (SU)** |  |  |  |  |  |  |  |
| **Phosphorus (%)** |  |  |  |  |  |  |  |
| **Sodium (mg/kg)** |  |  |  |  |  |  |  |
| **Total solids (%)** |  |  |  |  |  |  |  |
| **Total volatile solids (%)** |  |  |  |  |  |  |  |
| **List results of other parameters required by permit** |  |  |  |  |  |  |  |

**Site-Specific Information**

|  |  |  |  |
| --- | --- | --- | --- |
| **Site name (e.g., Olson – 4A)** |  |  |  |
| **MPCA LA station code (e.g., LA 301)** |  |  |  |
| Land occupier: |  |  |  |
| Actual acreage used for application: |  |  |  |
| Crop grown: |  |  |  |
| Realistic yield goal (yield/ac): |  |  |  |
| Crop grown previous year: |  |  |  |
| MANA rate (lb/ac): |  |  |  |
| Info provided to end user: | Yes  No | Yes  No | Yes  No |

**Soil Analysis**(See page 4 for instructions on reporting results for sites that require more than one sample.)

|  |  |  |  |
| --- | --- | --- | --- |
| Sample number: | of | of | of |
| Date sampled (mm/dd/yyyy): |  |  |  |
| Texture (coarse, medium, fine) |  |  |  |
| Organic matter (percent) |  |  |  |
| Phosphorus, extractable in soil (ppm) | Bray        Olson | Bray        Olson | Bray        Olson |
| Potassium, NH4AC, exchangeable in soil (ppm) |  |  |  |
| pH (SU) |  |  |  |
| Salts, water soluble in soil (mmhos/cm) |  |  |  |
| Other: |  |  |  |

**Application Rates and Methods** (An application rate calculator is available on the [IBP website](https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products).)

|  |  |  |  |
| --- | --- | --- | --- |
| Sample number(s) from IBP Analysis table used for application rate calculations: |  |  |  |
| Gallons **or** wet tons of IBP applied **per acre** this year: | gal/ac        wet tons/ac | gal/ac        wet tons/ac | gal/ac        wet tons/ac |
| Months IBP was land applied  (check all that apply): | 9 10 11 12 1 2 3 4 5 6 7 8 | 9 10 11 12 1 2 3 4 5 6 7 8 | 9 10 11 12 1 2 3 4 5 6 7 8 |
| Application method  (check all that apply): | Surface  Injection  Incorporation (0-48 hrs) | Surface  Injection  Incorporation (0-48 hrs) | Surface  Injection  Incorporation (0-48 hrs) |
| For sites used during months = 12, 1, 2, or 3 (winter), is the maximum slope at the site used during application less than 2%? | Yes  No | Yes  No | Yes  No |
| **Nitrogen applied (pounds/acre)** |  | | |
| Available nitrogen applied in IBP this year: |  |  |  |
| Carryover nitrogen from one year ago: |  |  |  |
| Nitrogen applied from other sources: |  |  |  |
| Total nitrogen applied: |  |  |  |
| Carryover nitrogen for next year: |  |  |  |
| **Phosphorus applied (lb/ac):** |  |  |  |
| **Sodium applied (lb/ac)** |  |  |  |
| **Additional parameter name**: |  |  |  |
| Annual application rate (lb/ac): |  |  |  |
| Cumulative loading rate (if required) (lb/ac): |  |  |  |

**Certification**

I certify that I am familiar with the information contained in this report, and that to the best of my knowledge and belief the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Principal Executive Officer/Authorized Agent** | | | |  | **Type IV Certified Operator** | | | |
| Print name: | | |  |  | Print name: | | |  |
| Signature: | |  | |  | Signature: | |  | |
| Date: |  | | |  | Date: |  | | |

*(mm/dd/yyyy) (mm/dd/yyyy)*

**Type IV Certified Operator Information:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Telephone number: | | |  | |  | Email: |  | | | | | |
| Mailing address: | | |  | | | | | | | | | | | |
| City: | |  | | | | | | | State: | |  | Zip code: |  | |
| Certification number: | | | |  | | | |  | Certification expiration date: | |  | |

*(mm/dd/yyyy)*

**IBP Annual Report Instructions**

**Page 1: Total Quantity of IBP Land Applied or Transferred**: Use the waste stream code (e.g., WS 301, WS 302) in your permit to detail how much IBP was land applied and/or transferred for each waste stream. In some cases, you may have multiple rows for the same waste stream if it was land applied and transferred to storage or was transferred to multiple storage sites.

For rows reporting the amount transferred to a certified or approved storage site, provide the storage site name in the right-hand column. For rows reporting the amount land applied, do not list the land application (LA) station codes (i.e., LA 301) in the right-hand column. Individual LA station codes are used on page 3 for land application information.

You may also report in this section the amount of IBP transferred to other storage or disposal facilities (e.g., landfill, animal feed, waste-to-energy facility, compost facility).

**Comments:** Use the comments section to describe any management problems during the cropping year.

**Page 2: IBP Analysis:** Complete the table for each IBP waste stream. Make sure to record the results in the units specified on the form. Include the laboratory analytical reports for all IBP analyses with the Annual Report. Refer to your permit for sampling parameters and frequency requirements.

**Page 3:** **Site-Specific Information**. Complete one column for each LA site used during the cropping year. If more than one crop is grown at the same site, complete one column for each crop. If a site is managed in more than one way across different areas (different crops, application rates, application timing, other fertilizer sources, etc.), use a separate column for each different scenario. For example, if 20 acres of a 40-acre site were planted in corn, while the remaining 20 acres were planted in soybeans, report the site for each scenario. The more complicated a site is managed, the more columns that may be needed. You may also report a site more than once if multiple application events to the same area occurred that requires calculating event-specific application rates, such as seasonal application, different IBPs, or different application rates. In this case, you need to compare the sum all application events to the MANA rate and sodium limit.

**Soil Analysis:** List the soil analytical results for the latest samples to demonstrate that the site has been sampled within the past three years prior to land application. If a site requires more than one soil sample because it’s greater than 40 acres, record one sample result on page 3 and use the Soil Data Attachment (wq-lndapp7-17) available on the [IBP website](https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products) to report additional sample results for samples 2, 3, etc.

**Application Rates and Methods**. For calculating application rates, use IBP analytical results that are representative of what was applied at the time it was applied. Use the sample numbers from page 2 to indicate which samples were used for your calculations. Do not use an annual average if it does not represent what was applied at the time of application. The MPCA may consider an annual average to be unrepresentative for an application event at a particular site. Remember to calculate the application rates for any additional parameters included in your permit. An application rate calculator is available on the [IBP website](https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products) to assist in determining application rates.

**Page 4: Certification**. Your permit requires that all land application activities be done by or under the supervision of a Type IV certified operator. Have your certified operator and a duly authorized agent sign the Annual Report. Unsigned reports are considered incomplete and not in compliance with permit requirements. If no IBP was land applied or transferred, a Type IV certified operator does not need to sign the report, but the permittee’s authorized agent must still sign the report.

**Supplemental Pages**: If more than one page is needed for pages 1, 2, or 3, individual supplemental pages are available on   
the [IBP website](https://www.pca.state.mn.us/business-with-us/land-application-of-industrial-by-products).