



# Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to a Publicly-Owned Treatment Works (POTW)

This application is for a state waste discharge permit for a discharge of industrial wastewater to a publicly-owned treatment works (POTW) as required by Chapter 90.48 RCW and Chapter 173-216 WAC. It is designed to provide Ecology with information on pollutants in the waste stream, materials that may enter the waste stream, and the flow characteristics of the discharge.

Ecology may request additional information to clarify the conditions of this discharge. The applicant should reference information previously submitted to Ecology that applies to this application in the appropriate section.

## SECTION A. GENERAL INFORMATION

1. Applicant Name: AstaReal, Inc.
2. Facility Name: AstaReal, Inc.  
(if different from Applicant)
3. Applicant Mail Address: 7761 Randolph Rd NE  
Street  
Moses Lake, WA 98837  
City/State Zip
4. Facility Location Address: \_\_\_\_\_  
(if different from 3 above) Street  
\_\_\_\_\_  
City/State Zip
5. UBI No. 603-244-575  
Sometimes called a registration, tax, "C," or resale number, the Unified Business Identifier (UBI) number is a nine-digit number used to identify persons engaging in business activities. The number is assigned when a person completes a [Master Business Application](#) to register with or obtain a license from state agencies. The Departments of Revenue, Licensing, Employment Security, Labor and Industries, and the Corporations Division of the Secretary of State are among the state agencies participating in the UBI program.
6. Latitude/longitude of the facility as decimal degrees (NAD83/WGS84):  
47.19900 / -119.292678

<b>FOR OFFICE USE ONLY</b>		<b>Check One:</b>	
		New/Renewal <input type="checkbox"/>	Modification <input type="checkbox"/>
Date Application Received _____	Date Fee Paid _____	Application/ Permit No. _____	Date Application Accepted _____

7. Person to contact who is familiar with the information contained in this application:

Name

Title

Telephone number

Fax number

8. Check One:



**Permit Renewal** (including renewal of temporary permits)

Does this application request a greater amount of wastewater discharge, a greater amount of pollutant discharge, or a discharge of different pollutants than specified in the last permit application for this facility? ☒ YES ☐ NO

For permit renewals, the current permit is an attachment, by reference, to this application.



**Permit Modification**



**Existing Unpermitted Discharge**



**Proposed Discharge**

Anticipated date of discharge: \_\_\_\_\_

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and/or imprisonment for knowing violations.*

  
Signature\*

11/20/2020

Date

Quality Manager

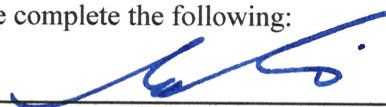
Title

Sunil Kmar

Printed Name

\*Applications must be signed as follows: corporations, by a principal executive officer of at least the level of vice-president; partnership, by a general partner; sole proprietorship, by the proprietor. If these titles do not apply to your organization, the person who makes budget decisions for this facility must sign the application.

The application signatory may delegate signature authority for submittals required by the permit, such as monthly reports, to a suitable employee. You can delegate this authority to a qualified individual or to a position, which you expect to fill with a qualified individual. If you wish to delegate signature authority, please complete the following:

  
Signature of delegated employee

11/20/2020

Date

General Affairs Manager

Title or function at the facility

T. Yamagishi  
Printed name

## SECTION B. PRODUCT INFORMATION

- Briefly describe all manufacturing processes and products, and/or commercial activities, at this facility. Provide the applicable Standard Industrial Category (SIC) and the North American Industry Classification System (NAICS) Code(s) for each activity (see *North American Industrial Classification System*, 2007 ed.). You can find the 1997 NAICS codes and the corresponding 1987 Standard Industry Category (SIC) codes at (<http://www.census.gov/epcd/naics/frames3.htm>).

Description: 111419

The AstaReal, Inc. produces astaxanthin in form of algae biomass at Moses Lake, WA facility. Produced algae biomass shipped off site for further processing and distribution. The main components of the facility are large algae cultivation tanks along with supporting pumping and process equipments. Algae cultivated at small scale then used as seed for large tanks to grow large amount of algae. After maturation, the algae is harvested in batches by separating water (decant) from algae, dried and then packaged. This packaged algae transported to further processing. After each batch harvesting all equipments are cleaned before starting next batch. Wastewater generated from the different steps in the processing includes: Tank cleaning, Reverse Osmosis (RO) waste and Decant water.

- List raw materials and products used at his facility:

Type	RAW MATERIALS	Quantity
<i>Grapes (Example)</i>		<i>1,000 tons per year</i>
Seed stock medium/Inorganic Salts		207.68 tons/year
Type	PRODUCTS	Quantity
<i>Grape Juice(Example)</i>		<i>300,000 gallons per year</i>
Algae Biomass		52 tons/year



## SECTION C. PLANT OPERATIONAL CHARACTERISTICS

1. For each process listed in B.1. that generates wastewater, list the process, assign the waste stream a name and an ID # and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch (B) or Continuous (C) Process
Tank Cleaning	Cleaning	1	B
Decant Water	Decant	2	B
RO Waste	RO Waste	3	C

2. On a separate sheet, produce a schematic drawing showing production processes, water flow through the facility, wastewater treatment devices and waste streams as named above. The drawing should indicate the source of intake water and show the operations contributing wastewater to the effluent. The treatment units should be labeled. Construct a water balance by showing average flows between intakes, operations, treatment units, and points of discharge to the POTW. *(See the example on page 16 of this application form.)*
3. What is the maximum daily wastewater discharge flow? 148,786 gallons/day
- What is the maximum average monthly wastewater discharge flow (daily flows averaged over a month)? 69,004 gallons/day
4. Describe any planned wastewater treatment improvements or changes in wastewater disposal methods, and the schedule for these improvements. *(Use additional sheets, if necessary and label as attachment C4.)*
- None



5. If production processes are subject to seasonal variations, provide the following information. The combined value for each month should equal the estimated total monthly flow. Please indicate the proper flow unit by checking one of the following boxes:

☐ gallons per day

☐ gallons per month

☐ million gallons per month

Waste Stream ID#	MONTHS											
	J	F	M	A	M	J	J	A	S	O	N	D
Estimated Total Monthly Flow (GPD)												

6. How many hours a day does this facility typically operate? 24
- How many days a week does this facility typically operate? 7
- How many weeks per year does this facility typically operate? 365

7. List all incidental materials, such as oil, paint, grease, solvents, and cleaners, that are used or stored on site (*list only those with quantities greater than 10 gallons for liquids and 50 pounds for solids*). For solvents and solvent-based cleaners, include a copy of the material safety data sheet and estimate the quantity used. (*Use additional sheets, if necessary, and label as attachment C.7.*)

Materials/Quantity Stored: List attached with application

- | 8. | Some types of facilities are required to have spill or waste control plans. Does this facility have:          | Does | Yes                                 | No                                  |
|----|---|------|-------------------------------------|-------------------------------------|
| a. | A spill prevention, control, and countermeasure plan (40 CFR 112)?  |      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b. | An Oil Spill Contingency Plan (chapter 173-182 WAC)?  |      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c. | An emergency response plan (per WAC 173-303-350)?   |      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d. | A runoff, spillage, or leak control plan (per WAC 173-216-110(f))?  |      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e. | Any spill or pollution prevention plan required by local, state or federal authorities? If yes specify: _____ |      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f. | A solid waste control plan?   |      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g. | A Slug Discharge Control Plan (40 CFR 403.8(f)(2)(v))?  |      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

## SECTION D. WATER CONSUMPTION AND WATER LOSS

1. Potable water source(s):

☒ ☐ Public System (Specify) City of Moses Lake

☐ ☐ Private Well

☐ ☐ Surface Water

a. Water Right Permit Number: \_\_\_\_\_

b. Legal Description of Water Source

\_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_  $\frac{1}{4}$ E, \_\_\_\_\_, Section, \_\_\_\_\_ TWN, \_\_\_\_\_ R

2. Potable water use

a. Indicate total water use \_\_\_\_\_

Gallons per day (average) 118,000

Gallons per day (maximum) 161,000

b. Is water metered?

☒ YES ☐ NO



## SECTION E. WASTEWATER INFORMATION

1. How are the water intake and effluent flows measured?

Intake: meter

Effluent meter

2. Describe the collection method for the samples analyzed below. (*i.e.*, grab, 24-hour composite). Applicants must collect grab samples (not composites) for analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), and Enterococci (previously known as fecal streptococcus at § 122.26 (d)(2)(iii)(A)(3)), or volatile organics.

24-hour composite sample

3. Has the effluent been analyzed for any other parameters than those identified in question E.4.? ☐ YES ☒ NO  
If yes, attach results and label as attachment E.4. This data must clearly show the date, method and location of sampling. (*Note: Ecology may require additional testing.*)
4. Provide measurements or range of measurements for treated wastewater prior to discharge to the POTW for the parameters with an "X" in the left column. If you obtain the application from the internet, contact Ecology's regional office to see if testing for a subset of these parameters is permissible. All analyses (except pH) must be conducted by a laboratory registered or accredited by Ecology (WAC 173-216-125). If this is an application for permit renewal, provide data for the last year for those parameters that are routinely measured. For parameters measured only for this application, place the values under "Maximum." Report the values with units as specified in the parameter name or in the detection level.

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table unless Ecology approves an alternate method or the method used produces measurable results in the sample and EPA has listed it as an EPA approved method in 40 CFR Part 136. If the Permittee uses an alternative method as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
X	BOD (5 day)	18	525	169.7	68	SM 5210 B	/2 mg/l
	COD					SM 5220 D	/10 mg/l
	Total suspended solids					SM 2540 D	/5 mg/l
	Fixed Dissolved Solids					SM 2540 E	
X	Total dissolved solids	258	8580	1058.8	68	SM 2540 C	
X	Conductivity (micromhos/cm)	456	7800	1463.12	68	SM 2510 B	
	Ammonia-N as N					SM 4500-NH <sub>3</sub> C	/0.3 mg/L
X	pH	4	10.1	7.5	1035	SM 4500-H	0.1 standard units
	Fecal coliform (organisms/100 mL)					SM 9221 E or 9222 D	
	Total coliform (organisms/100 mL)					SM 9221 B or 9222 B	
	Dissolved oxygen					SM 4500-O C/G	
X	Nitrate + nitrite-N as N		2		68	SM 4500-NO <sub>3</sub> E	100 µg/L
X	Total kjeldahl N as N	0.3	8.3	3.35	68	SM 4500-N <sub>org</sub> C/E/FG	300 µg/l
	Ortho-phosphate-P as P					SM 4500-P E/F	10 µg/l
X	Total-phosphorous-P as P	0.8	27.9	5.07	68	SM 4500-P E/P/F	10 µg/l
X	Total Oil & grease	1.9	120	17.81	68	EPA 1664A	1.4/5 mg/l
	NWTPH - Dx					Ecology NWTPH Dx	250/250 µg/l
	NWTPH - Gx					Ecology NWTPH Gx	250/250 µg/l
X	Calcium	62.5	164	104.4	5	EPA 200.7	10 µg/l
X	Chloride	5.1	365	107.98	68	SM 4500-Cl C	0.15 µg/l
X	Fluoride	0.15	21.2	4.39	68	SM 4500-F E	.025/0.1 mg/l
X	Magnesium	14.90	26.4	19.77	5	EPA 200.7	10/50 µg/l
	Potassium					EPA 200.7	700/ µg/l
X	Sodium	19.8	170	64.22	68	EPA 200.7	29/ µg/l
	Sulfate					SM 4500-SO <sub>4</sub> C/D	/200 µg/l
X	Arsenic(total)	0.00192	0.004	0.0027	5	EPA 200.8	0.1/0.5 µg/l

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	Barium (total)					EPA 200.8	0.5/2 µg/l
X	Cadmium (total)	<0.0002	<0.0004		5	EPA 200.8	.05/.25 µg/l
X	Chromium (total)	0.0025	0.0474	-	5	EPA 200.8	0.2/1 µg/l
X	Copper (total)	0.00785	0.0499	0.0220	5	EPA 200.8	0.4/2 µg/l
X	Lead (total)	0.0005	0.1		5	EPA 200.8	0.1/.5 µg/l
	Mercury (total) pg/L					EPA 1631E	0.2/0.5 pg/l
X	Molybdenum (total)	0.0018	0.4	0.068	68	EPA 200.8	0.1/0.5 µg/l
X	Nickel (total)	0.0018	0.0237		5	EPA 200.8	0.1/0.5 µg/l
X	Selenium (total)	<0.002	<0.002	-	5	EPA 200.8	1/1 µg/l
X	Silver (total)	<0.0047	<0.0047	-	5	EPA 200.8	.04/.2 µg/l
X	Zinc (total)	0.005	0.0240	0.0155	5	EPA 200.8	0.5/2.5 µg/l

6. Does this facility use any of the following chemicals as raw materials or produce them as part of the manufacturing process, or are they present in the wastewater? ☐ YES ☒ NO

(The number in the column next to the chemical name is the Chemical Abstract Service (CAS) reference number to aid in identifying the compound.)

If yes, specify how the chemical is used and the quantity used or produced:



METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total	7440-36-0	Nickel, Total	7440-02-0
Arsenic, Total	7440-38-2	Selenium, Total	7782-49-2
Beryllium, Total	7440-41-7	Silver, Total	7440-22-4
Cadmium, Total	7440-43-9	Thallium, Total	7440-28-0
Chromium (hex) dissolved	18540-29-9	Zinc, Total	7440-66-6
Chromium, Total	7440-47-3		
Copper, Total	7440-50-8	Cyanide, Total	57-12-5
Lead, Total	7439-92-1	Cyanide, Weak Acid Dissociable	
Mercury, Total	7439-97-6	Phenols, Total	

PESTICIDES			
Aldrin	309-00-2	Endrin	72-20-8
alpha-BHC	319-84-6	Endrin Aldehyde	7421-93-4
beta-BHC	319-85-7	Heptachlor	76-44-8
gamma-BHC	58-89-9	Heptachlor Epoxide	1024-57-3
delta-BHC	319-86-8	PCB-1242	53469-21-9
Chlordane	57-74-9	PCB-1254	11097-69-1
4,4'-DDT	50-29-3	PCB-1221	11104-28-2
4,4'-DDE	72-55-9	PCB-1232	11141-16-5
4,4' DDD	72-54-8	PCB-1248	12672-29-6
Dieldrin	60-57-1	PCB-1260	11096-82-5
alpha-Endosulfan	959-98-8	PCB-1016	12674-11-2
beta-Endosulfan	33213-65-9	Toxaphene	8001-35-2
Endosulfan Sulfate	1031-07-8		

VOLATILE COMPOUNDS			
Acrolein	107-02-8		
Acrylonitrile	107-13-1	1,1-Dichloroethylene	75-35-4
Benzene	71-43-2	1,2-Dichloropropane	78-87-5
Bromoform	75-25-2	1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene)	542-75-6
Carbon tetrachloride	56-23-5	Ethylbenzene	100-41-4
Chlorobenzene	108-90-7	Methyl bromide (Bromomethane)	74-83-9
Chloroethane	75-00-3	Methyl chloride (Chloromethane)	74-87-3
2-Chloroethylvinyl Ether	110-75-8	Methylene chloride	75-09-2
Chloroform	67-66-3	1,1,2,2-Tetrachloroethane	79-34-5
Dibromochloromethane	124-48-1	Tetrachloroethylene	127-18-4
1,2-Dichlorobenzene	95-50-1	Toluene (108-88-3)	
1,3-Dichlorobenzene	(541-73-1)	1,2-Trans-Dichloroethylene (Ethylene dichloride)	156-60-5
1,4-Dichlorobenzene	106-46-7	1,1,1-Trichloroethane	71-55-6
Dichlorobromomethane	75-27-4	1,1,2-Trichloroethane	79-00-5
1,1-Dichloroethane	75-34-3	Trichloroethylene	79-01-6
1,2-Dichloroethane	107-06-2	Vinyl chloride	75-01-4

ACID COMPOUNDS			
2-Chlorophenol	95-57-8	4-nitrophenol	100-02-7
2,4-Dichlorophenol	120-83-2	Parachlorometa cresol (4-chloro-3-methylphenol)	59-50-7
2,4-Dimethylphenol	105-67-9	Pentachlorophenol	87-86-5
4,6-dinitro-o-cresol (2-methyl-4,6,-dinitrophenol)	534-52-1	Phenol	108-95-2
2,4 dinitrophenol	51-28-5	2,4,6-Trichlorophenol	88-06-2
2-Nitrophenol	88-75-5		

BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene	83-32-9	3,3-Dichlorobenzidine	91-94-1
Acenaphthylene	208-96-8	Diethyl phthalate	84-66-2
Anthracene	120-12-7	Dimethyl phthalate	131-11-3
Benidine	92-87-5	Di-n-butyl phthalate)	84-74-2
Benzyl butyl phthalate	85-68-7	2,4-dinitrotoluene	121-14-2
Benzo(a)anthracene	56-55-3	2,6-dinitrotoluene	606-20-2
Benzo(b)fluoranthene (3,4-benzofluoranthene)	205-99-2	Di-n-octyl phthalate	117-84-0
<b>Benzo(j)fluoranthene</b>	<b>205-82-3</b>	1,2-Diphenylhydrazine (as <i>Azobenzene</i> )	122-66-7
Benzo(k)fluoranthene (11,12-benzofluoranthene)	207-08-9	Fluoranthene	206-44-0
<b>Benzo(r,s,t)pentaphene</b>	<b>189-55-9</b>	Fluorene	86-73-7
Benzo(a)pyrene	50-32-8	Hexachlorobenzene	118-74-1
Benzo(ghi)Perylene	191-24-2	Hexachlorobutadiene	87-68-3
Bis(2-chloroethoxy)methane	111-91-1	Hexachlorocyclopentadiene	77-47-4
Bis(2-chloroethyl)ether	111-44-4	Hexachloroethane	67-72-1
Bis(2-chloroisopropyl)ether	39638-32-9	Indeno(1,2,3-cd)Pyrene	193-39-5
Bis(2-ethylhexyl)phthalate	117-81-7	Isophorone	78-59-1
4-Bromophenyl phenyl ether	101-55-3	<b>3-Methyl cholanthrene</b>	<b>56-49-5</b>
2-Chloronaphthalene	91-58-7	Naphthalene	91-20-3
4-Chlorophenyl phenyl ether	7005-72-3	Nitrobenzene	98-95-3
Chrysene	218-01-9	N-Nitrosodimethylamine	62-75-9
<b>Dibenzo (a,j)acridine</b>	<b>224-42-0</b>	N-Nitrosodi-n-propylamine	621-64-7
<b>Dibenzo (a,h)acridine</b>	<b>226-36-8</b>	N-Nitrosodiphenylamine	86-30-6
Dibenzo(a-h)anthracene (1,2,5,6-dibenzanthracene)	53-70-3	<b>Perylene</b>	<b>198-55-0</b>
Dibenzo(a,e)pyrene	192-65-4	Phenanthrene	85-01-8
Dibenzo(a,h)pyrene	189-64-0	Pyrene	129-00-0
		1,2,4-Trichlorobenzene	120-82-1

7. Are any other pesticides, herbicides or fungicides used at this facility? ☐ YES ☒ NO

If yes, specify the material and quantity used:

8. Are there other pollutants that you know of or believe to be present? ☐ YES ☒ NO

If yes, specify the pollutants and their concentration if known  
(attach laboratory analyses if available as Attachment E8):

9. Is the wastewater being discharged, or proposed for discharge, to the POTW designated as a dangerous waste according to the procedures in Chapter 173-303 WAC?

☐ YES ☒ NO ☐ DON'T KNOW

10. If the answer to question 9 above is yes, how did the waste designate as a dangerous waste (check appropriate box)?

For Listed and TCLP Characteristic Wastes only, also provide the Dangerous Waste Number(s).

**Listed Waste** ☐ Dangerous Waste Number(s) \_\_\_\_\_

**Characteristic Wastes** Dangerous Waste Number(s) \_\_\_\_\_

Ignitable ☐

Reactive ☐

Corrosive ☐

TCLP ☐

**State Only Dangerous Wastes** Dangerous Waste Number(s) \_\_\_\_\_

Toxicity ☐

Persistent ☐

For questions about waste designation under the *Dangerous Waste Regulations*, Chapter 173-303 WAC, contact Ecology's Hazardous Waste and Toxics Program at:

Northwest Regional Office - Bellevue	(425) 649-7000
Southwest Regional Office - Lacey	(360) 407-6300
Central Regional Office - Yakima	(509) 575-2490
Eastern Regional Office - Spokane	(509) 329-3400



## SECTION F. SEWER INFORMATION

1. Is an inspection and sampling manhole or similar structure available on-site? ☒ YES ☐ NO  
*If yes, attach a map or hand drawing of the facility that shows the location of these structures  
(Label as attachment F1 or this may be combined with map in H8, if H8 is applicable to your  
facility.)*

## **SECTION G. OTHER PERMITS**

1. List all environmental control permits or approvals needed for this facility; for example, air emission permits.

DOE Air Permit,

## SECTION H. STORMWATER

1. Do you have coverage under the Washington State Industrial Stormwater NPDES General Permit? ☐ YES ☒ NO

If yes, please list the permit number here. \_\_\_\_\_

- If no, have you applied for a Washington State Stormwater Industrial Stormwater General Permit? ☐ YES ☒ NO

If you answered no to both questions above, complete the following questions 2 through 5.

2. Does your facility discharge stormwater: *(Check all that apply)*

☐ To storm sewer system *(provide name of storm sewer system operator: \_\_\_\_\_)*

☐ Directly to any surface waters of Washington State *(e.g., river, lake, creek, estuary, ocean)*.

Specify waterbody name(s) \_\_\_\_\_

☐ Indirectly to surface waters of Washington State *(i.e., flows over adjacent properties first)*.

☐ ☐ To a Sanitary Sewer

☐ Directly to ground waters of Washington State via:

☐ ☐ Dry well

☐ Drainfield

☐ Other

3. Areas with industrial activities at facility: *(check all that apply)*

☒ ☐ Manufacturing Building

☐ ☐ Material Handling

☒ ☐ Material Storage

☐ ☐ Hazardous Waste Treatment, Storage, or Disposal *(Refers to RCRA, Subtitle C Facilities Only)*

☐ ☐ Waste Treatment, Storage, or Disposal

☒ ☐ Application or Disposal of Wastewaters

☐ ☐ Storage and Maintenance of Material Handling Equipment

☐ ☐ Vehicle Maintenance

☐ ☐ Areas Where Significant Materials Remain

☐ ☐ Access Roads and Rail Lines for Shipping and Receiving





Other (please specify): \_\_\_\_\_

4. Material handling/management practices

a. Types of materials handled and/or stored outdoors: *(check all that apply)*

☐

Solvents

☐

Hazardous Wastes

☐

Scrap Metal

☐

Acids or Alkalies

☐

Petroleum or Petrochemical Products

☐

Paints/Coatings

☐

Plating Products

☐

Woodtreating Products

☐

Pesticides

☐

Other *(please list)*: \_\_\_\_\_

b. Identify existing management practices employed to reduce pollutants in industrial stormwater discharges: *(check all that apply)*

☐

Oil/Water Separator

☐

Detention Facilities

☐

Containment

☐

Infiltration Basins

☐

Spill Prevention

☐

Operational BMPs

☐

Surface Leachate Collection

☐

Vegetation Management

☐

Overhead Coverage

☐

Other *(please list)*: \_\_\_\_\_

5. Attach a facility site map showing stormwater drainage/collection areas, disposal areas and discharge points. This may be a hand-drawn map if no other site map is available *(See example on page 16 of this application)*. Label this as attachment H.5.

## SECTION I. OTHER INFORMATION

1. Describe liquid wastes or sludges being generated by your facility that are not disposed of in the waste stream(s) and how they are being disposed of. For each type of waste, provide type of waste and the name, address, and phone number of the hauler.

Safety-Kleen Systems Inc., Address: 2600 N Central Expy, Suite 200, Richardson, TX 75080

Contact: Corporate 8006695740, 5095478771

2. Describe storage areas for raw materials, products, and wastes.

Chemicals are stored in a secure storage room with a concrete floor designed for use as a chemical storage area. Spill control products and secondary containment maintained as necessary within storage area. Finish product stored in cooler and refrigerator.

3. Have you designated the wastes described above according to the applicable ☐ YES ☐ NO procedures of Dangerous Waste Regulations, Chapter 173-303 WAC?

## SECTION J. CERTIFICATIONS

### 1. Approval by Publicly-Owned Treatment Works [required by WAC 173-216-070(4)(b)]

*I approve of the discharge as described in this application. The applicant is:*

(Please check the appropriate box below.)

☒ ☐ ☐ A Significant Industrial User (see Definitions at the end of this Section)

☐ ☐ ☐ A Categorical Industrial User

☐ ☐ ☐ Neither of the above

Name and location of sewer system to which this project will be tributary:

Port of Moses Lake, Waste Water Industrial Treatment Facility

Moses Lake, WA-98837, Location: Township 20R, Range 28E, Section 17

Treatment Works Owner: Port of Moses Lake

Street: 7810 Andrews St NE Suite 200

City/State: Moses Lake

Zip: WA

Signature of Treatment Works Authority

11/20/2020

Date

Executive Director

Title

Don Kersey

Printed Name

### 2. Application review by Intermediate Sewer Owner at point of discharge (if applicable)

*I hereby acknowledge that I have reviewed the application for discharge to this sewer system.*

Name and location of sewer system to which this project will be tributary:

Sewer System Owner:

Street:

City/State:

Zip:

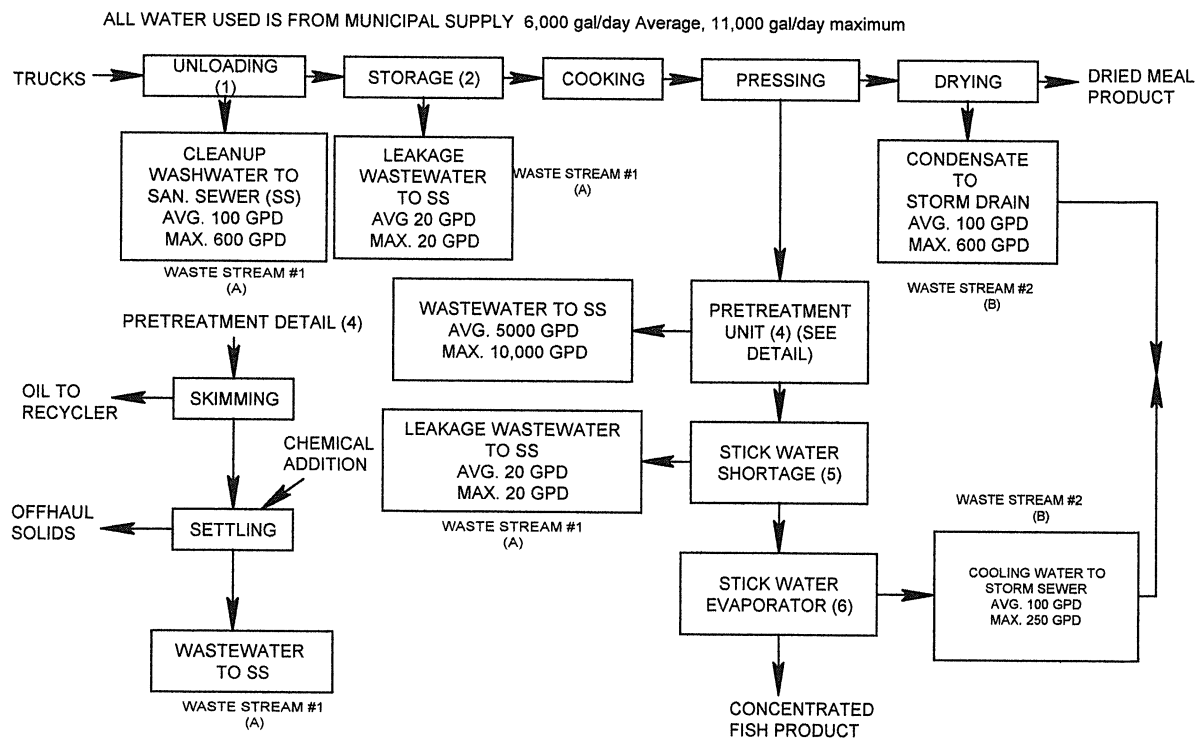
Signature of Sewer System Authority

Date

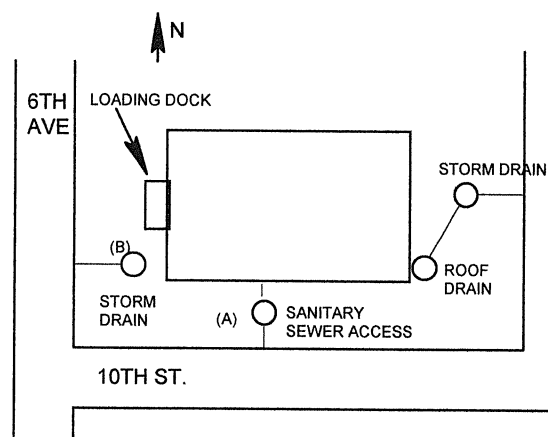
Title

Printed Name

### Example 1 for application section C.2. (SCHEMATIC DIAGRAM)



### Example 2 for application section F1 or H8 (FACILITY SITE MAP)



## DEFINITIONS

### **Significant Industrial User (SIU)--**

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

**Control Authority** - means the Washington State Department of Ecology in the case of non-delegated POTWs or means the POTW in the case of delegated POTWs.

**Categoric Industrial User (CIU):** An industrial user subject to national categorical pretreatment standards promulgated by EPA (40 CFR 403.6 and 40 CFR parts 405-471).

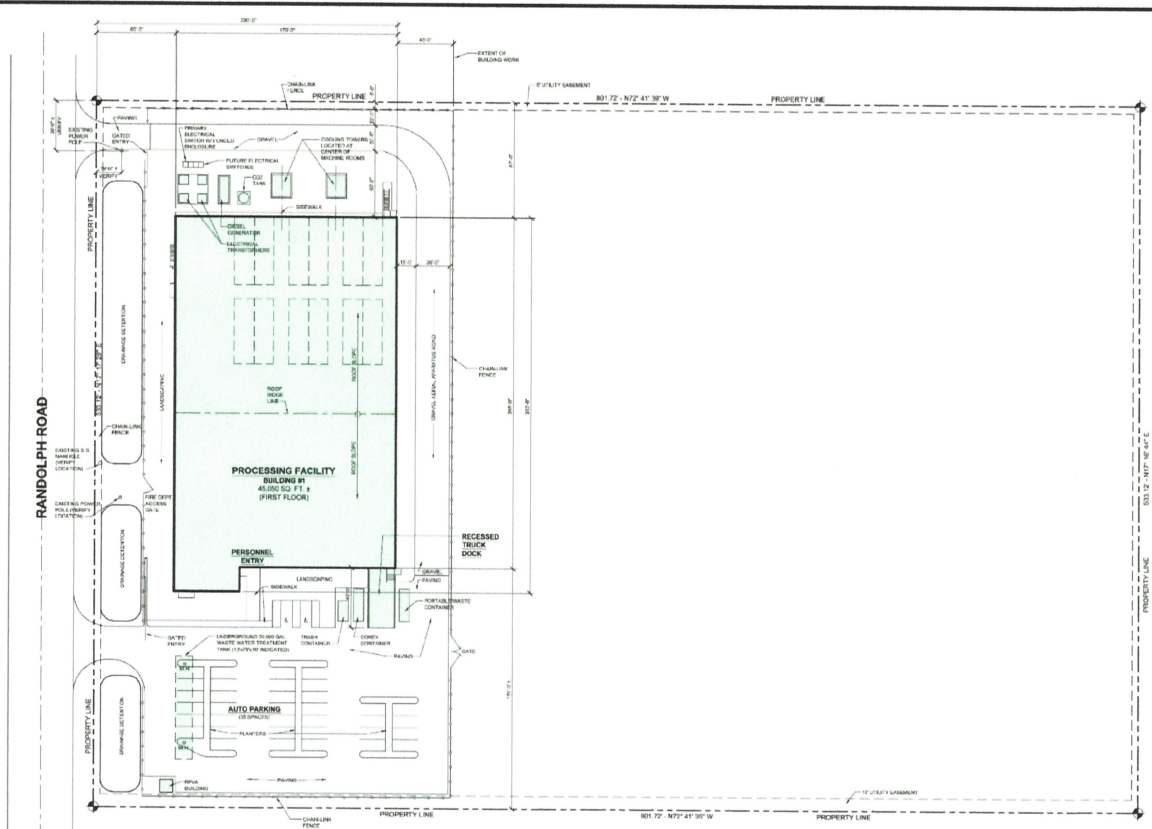
---

---

### **Summary of Attachments That May be Required for This Application:**

*(Please check those attachments that are included)*

- |                                     |                          |      |   |
|-------------------------------------|--------------------------|------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | C.2. | Production schematic flow diagram and water balance |
| <input type="checkbox"/>            | <input type="checkbox"/> | C.4. | Wastewater treatment improvements                   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | C.7. | Additional incidental materials                     |
| <input type="checkbox"/>            | <input type="checkbox"/> | E.8. | Additional results of effluent testing              |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | F.1. | Facility site map                                   |
| <input type="checkbox"/>            | <input type="checkbox"/> | H.5. | Stormwater drainage map                             |



**Note**

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Source: AstaReal Technologies 2012; Lydig 2012

Not to Scale

AstaReal Technologies  
Moses Lake, Washington

Site Plan

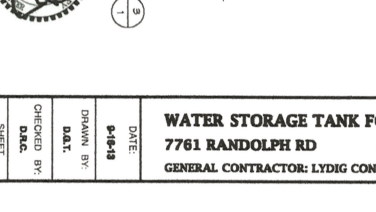
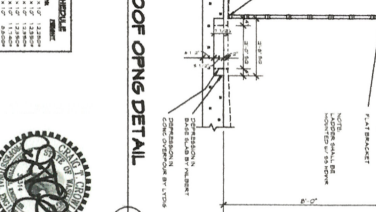
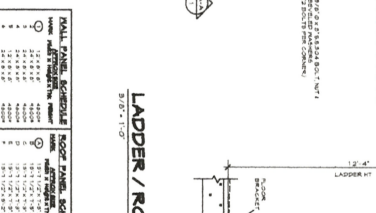
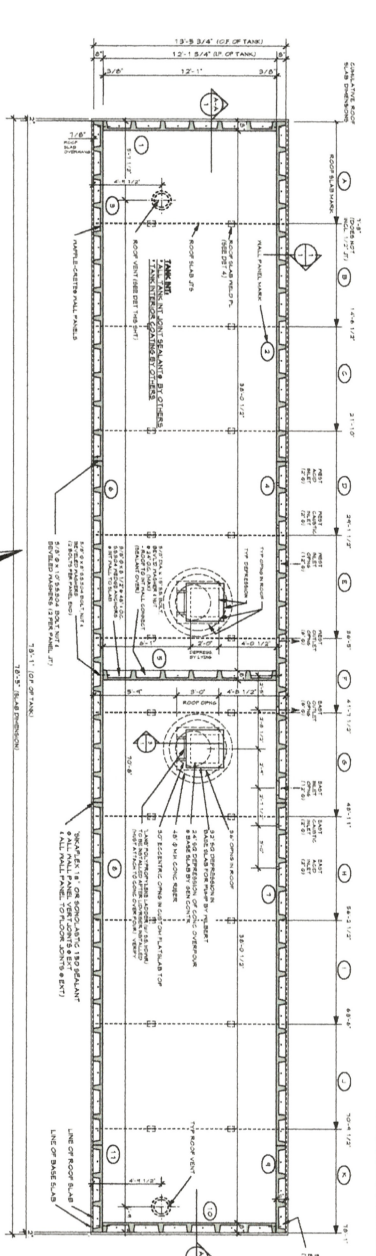
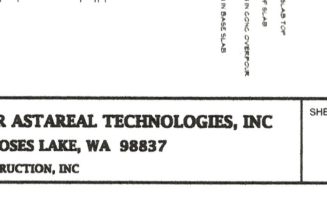
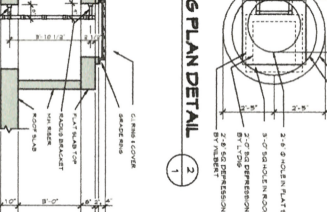
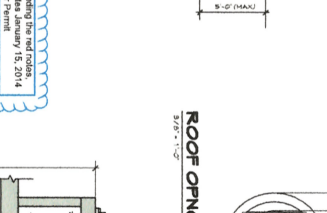
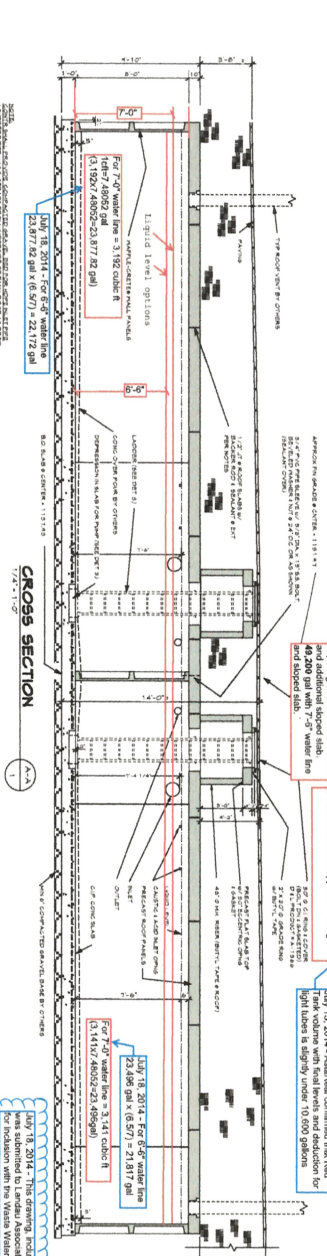
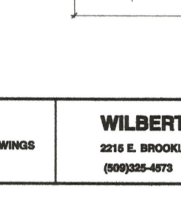
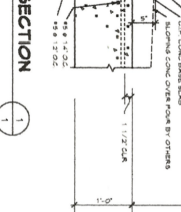
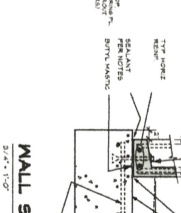
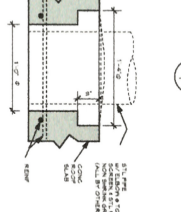
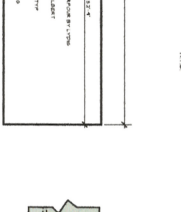
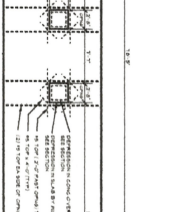
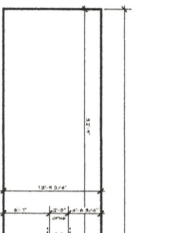
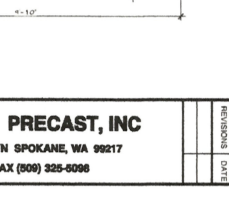
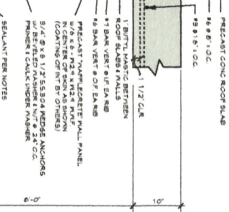
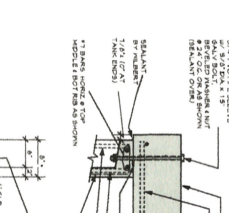
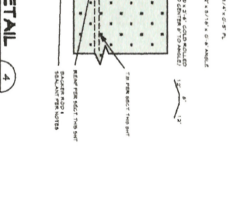
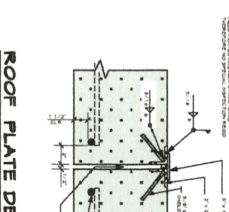
Figure  
2



PROJECT CONTACTS	
GEN. CONTR.	LYDIG CONSTRUCTION, 224 E. 42nd St., Spokane, WA 99201-2
CIVIL ENGINEER	COLEMAN ENGINEERING, 200 N. 1st St., Spokane, WA 99201-2
STRUCT. ENGINEER	COLEMAN ENGINEERING, 200 N. 1st St., Spokane, WA 99201-2
PRECAST MANUFACTURER	WILBERT PRECAST, 2215 E. Brooklyn, Spokane, WA 99217
GENERAL CONTRACTOR	LYDIG CONSTRUCTION, 224 E. 42nd St., Spokane, WA 99201-2

# NOTES:

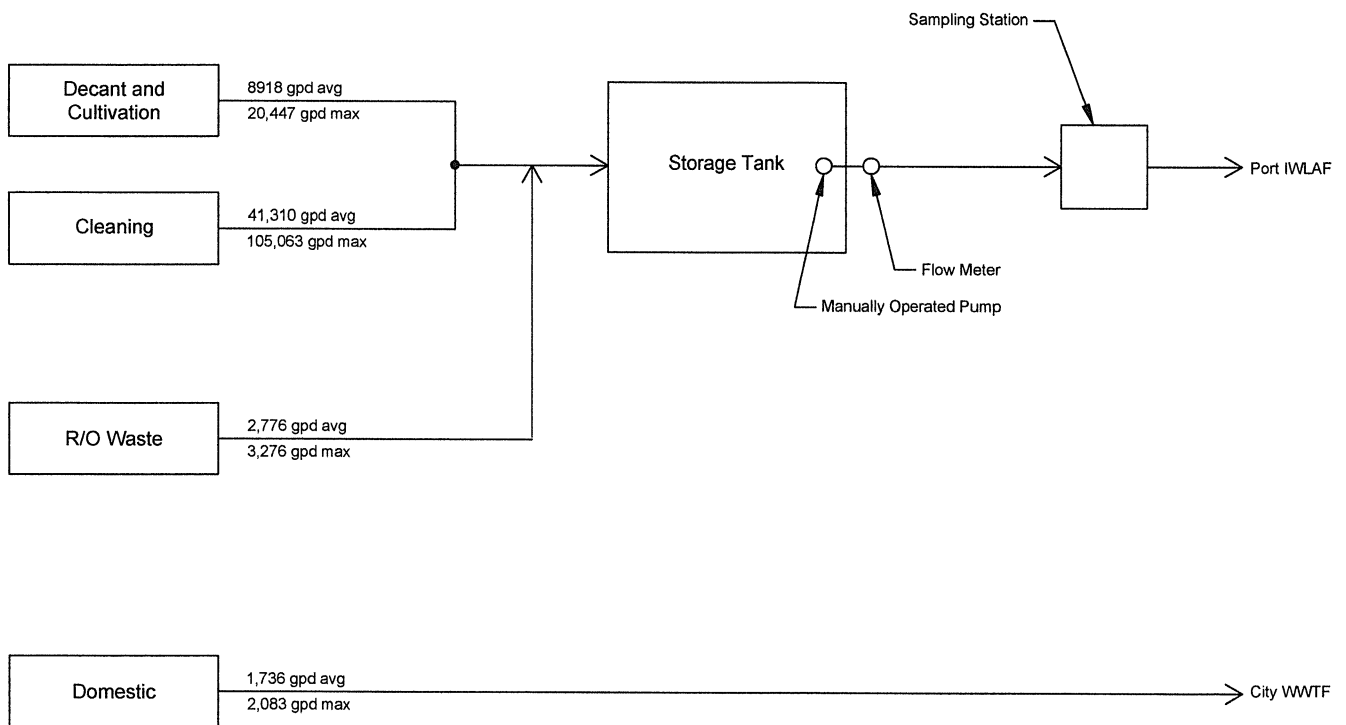
- ALL CAST CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.
- DESIGN CRACKS: MAX. SPACING 12" (12" MAX. SPACING) FOR CRACKS IN SLAB & 24" (24" MAX. SPACING) FOR CRACKS IN WALL.



NO.	DESCRIPTION	DATE
1	REVISION	1/15/2014
2	REVISION	1/15/2014
3	REVISION	1/15/2014
4	REVISION	1/15/2014
5	REVISION	1/15/2014
6	REVISION	1/15/2014
7	REVISION	1/15/2014
8	REVISION	1/15/2014
9	REVISION	1/15/2014
10	REVISION	1/15/2014
11	REVISION	1/15/2014
12	REVISION	1/15/2014

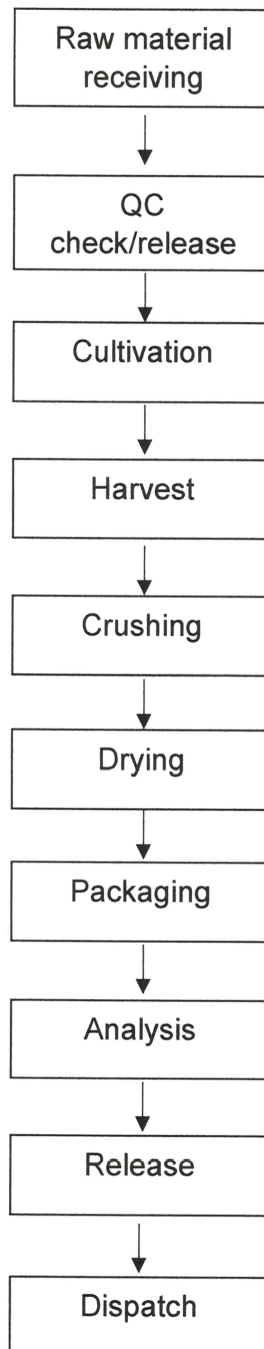


<b>WATER STORAGE TANK FOR ASTAREAL TECHNOLOGIES, INC</b> 7761 RANDOLPH RD MOSES LAKE, WA 98837 GENERAL CONTRACTOR: LYDIG CONSTRUCTION, INC		SHEET TITLE: SHOP DRAWINGS	<b>WILBERT PRECAST, INC</b> 2215 E. BROOKLYN SPOKANE, WA 99217 (509) 325-4573 FAX (509) 325-6096
DATE: 9-18-13	DRAWN BY: D.M.	CHECKED BY: D.M.	SHEET 1 OF 1 SHEETS



## Production flow chart – AW Products

Cultivation and processing of *Haematococcus pluvialis* by AstaReal, Inc.



## MONTHLY TESTING RESULTS (Yearly 2018-2020)

Year	Month	pH	pH (average monthly)	BOD (mg/L)	BOD (average monthly)	TDS (mg/L)	TDS (average monthly)	Molybdenum (mg/L)	Molybdenum (average monthly)	Boron (mg/L)	Boron (average monthly)	Chloride (mg/L)	Chloride (average monthly)	Sodium (mg/L)	Sodium (average monthly)	Phosphorus (mg/L)	Phosphorus (average monthly)	Total Nitrogen (mg/L)	Total Nitrogen (average monthly)	TKN (mg/L)	TKN (average monthly)	Conductivity (µS/cm)	Conductivity (average monthly)	Manganese (mg/L)	Manganese (average monthly)	FOG (mg/L)	FOG (average monthly)	Comments	
2018	January	9.3	7.45	23	290	274	0.0100	0.01	0.10	0.1	22.0	15.25	25.6	1.3	1.05	2.5	1.85	1.7	1.05	484	470	0.008	0.005	3.2	2.55				
		5.6		18	258		0.0100		0.10		8.5		20.5	0.8		1.2	0.4		0.4	456		0.002		1.9					
	February	9.8	7.65	80	2950	2505	0.0100	0.01	0.10	0.1	109.0	78.45	78.5	9.3	2.8	3.1	2.8	3.0	2.75	2950	2905	0.028	0.0235	6.1	5.45				
		5.5		25	2060		0.0100		0.10		47.9		72.0	7.9		2.5	2.5		2.5	2860		0.019		4.8					
	March	9.8	7.7	128	1880	1540	0.0740	0.0491	0.28	0.2	132.0	92.7	81.5	13.9	9.05	4.0	3.8	3.6	3.4	6930	4275	0.055	0.0425	20.5	12.25				
		5.6		101	1200		0.0242		0.12		53.4		51.5	4.2		3.6	3.2		3.2	1620		0.03		4.0					
	April	9.9	7.75	272	167	903	0.3870	0.2545	0.50	0.34	333.0	216.35	134.0	1.3	1.08	5.67	4.535	5.5	3.95	1380	1215	0.126	0.083	31.8	17.3				
		5.6		62	674		0.1229		0.18		99.7		79.0	0.9		3.40	2.4		2.4	1050		0.04		2.8					
	May	9.6	7.45	155	147.5	708	0.0515	0.03075	0.20	0.15	108.0	63.1	83.5	3.8	2.8	3.49	2.945	2.7	2.1	1190	1083.5	0.0585	0.03275	7.0	5.2				
		5.3		140	668		0.0100		0.10		18.2		34.1	1.8		2.40	1.5		1.5	977		0.007		3.4					
	June	9.6	7.3	175	1760	1087	0.0100	0.01	0.1	0.1	34.1	20.75	31.2	16.1	8.95	3.6	2.4	2.4	2.4	2.4	2280	1451	0.0114	0.0072	19.3	11.4			
		5		60	474		0.0100		0.01		7.4		22.8	1.8		1.5	0.7	1.55	0.7	1.55	622		0.003		3.5				
	July	9.9	7.7	80	143	1436	0.1090	0.0995	0.25	0.175	104.0	87.1	80.5	13.5	8.6	4.8	4.25	3.5	3	2740	2050	0.0406	0.0228	17.3	14.1				
		5.5		80	882		0.0100		0.1		10.2		25.8	3.7		2.5	2.5		2.5	1360		0.005		10.9					
	August	10	7.9	368	1180	969	0.0100	0.01	0.1	0.1	13.9	9.5	26.4	27.5	16.05	2.68	2.44	2.0	1.65	1510	1139.5	0.0077	0.00535	22.5	19.05				
		5.8		190	758		0.0100		0.1		5.1		21.6	2.0		2.20	2.44	1.3		769		0.003		15.6					
	September	9.9	6.95	525	392.5	1100	0.2190	0.11	0.24	0.17	225.0	117.55	86.5	5.4	5.11	7.0	4.15	5.8	3.25	1210	1097	0.0365	0.01975	33.3	20.85				
		4		260	840		0.0100		0.1	0.17	10.1		22.2	4.8		1.3		0.7		984		0.003		8.4					
	October	9.8	7.65	365	1050	1002	0.2660	0.1496	0.2	0.175	163.0	140	69.5	3.8	3.3	3.90	3.65	3.1	2.85	1330	1325	0.058	0.051	17.9	11.35				
		5.5		235	954		0.0332		0.15		117.0		60.0	2.8		3.40		2.6		1320		0.044		4.8					
	November	9.8	7.75	320	1830	1765	0.2055	0.1705	0.25	0.195	205.0	201	104.0	3.7	2.815	6.33	3.265	5.0	2.65	2690	2495	0.0545	0.04125	14.7	11.15				
		5.7		225	1700		0.1355		0.14		197.0		77.5	1.9		0.20		0.3		2300		0.028		7.6					
	December	9.9	7.7	145	8580	4693	0.028	0.019	0.1	0.1	25.6	20.7	47.2	12.2	7.3	3.50	2.45	2.4	1.9	7800	4480	0.007	0.006	24.2	13.2				
		5.5		95	806		0.0100		0.10		15.8		20.7	2.4		1.4		1.4		1160		0.005		2.2					
2019	January	9.9	7.65	75	1810	1575	0.0336	0.0218	0.18	0.14	88.9	47.8	59.5	7.4	7.35	3.2	67.1	2.4	1.95	1960	1720	0.041	0.0245	6.2	5.9				
		5.4		40	1340		0.0100		0.1		6.7		19.8	7.3		131.0		1.5		1480		0.008		5.6					
	February	9.9	7.75	390	952	910	0.0165	0.01355	0.10	0.1	31.5	31.3	45.6	11.5	9	9.2	6	8.0	4.75	1340	1245	0.332	0.171	44.4	26.8				
		5.6		230	868		0.0106		0.10		31.1		42.2	6.5		2.8		1.5		1150		0.01		9.2					
	March	10.1	7.55	290	214	1040	0.1440	0.0799	0.10	0.1	106.0	64.7	50.5	6.1	4.9	7.7	5.15	7.3	4.65	1510	1225	0.027	0.0255	26.6	18.8				
		5		138	716		0.0158		0.10		23.4		35.0	3.7		2.6		2.0		940		0.024		11.0					
	April	10.0	7.5	250	2620	1744	0.0336	0.0218	0.10	0.1	54.7	31.15	58.5	11.5	6.65	3.3	2.4	2.7	1.5	3670	2440	0.022	0.0115	6.0	5.65				
		5.0		55	868		0.0100		0.10		7.6		22.8	1.8		1.5		0.3	1.5	1210		0.001	0.0115	5.3					
	May	10.0	7.8	352	786	706	0.0386	0.0276	0.10	0.1	31.6	24.4	44.0	16.8	15.15	4.8	3.85	4.8	3.85	1010	959.5	0.017	0.0145	60.8	33.75				
		5.6		230	626		0.0166		0.10		17.2		38.6	13.5		2.9		2.9		909		0.012		6.7					
	June	9.7	7.75	345	1190	1115	0.0190	0.0145	0.33	0.3	325.0	301	104.0	2.8	2.15	1.9	1.7	3.4	3	1740	1114.5	0.118	0.1015	21.2	13.65				
		5.8		218	1040		0.0100		0.27		277.0		100.0	1.5		1.5		2.6		489		0.085		6.1					
	July	9.6	7.45	298	1270	936	0.0366	0.02805	0.50	0.36	365.0	266	170.0	2.0	1.4	4.4	3.7	4.2	3.4	1870	1470	0.164	0.1225	3.6	3.5				
		5.3		138	602		0.0195		0.22		167.0		77.0	0.8		3.0		2.6		1070		0.081		3.4					
	August	9.3	7.35	165	636	634	0.0174	0.0144	0.15	0.135	125.0	113.5	73.5	1.4	1.35	5.3	4.5	4.5	4.1	1100	1030.5	0.049	0.044	7.4	5.9				
		5.4		118	632		0.0114		0.12		102.0		68.0	1.3		4.2		3.7		961		0.039		4.4					
	September	9.6	7.45	120	976	871	0.0100	0.01	0.28	0.215	126.0	157.55	111.0	1.9	1.75	4.9	4.2	4.6	3.4	1510	1355	0.092	0.063	14.0	10.6				
		5.3		45	766		0.0100		0.15		89.1		68.5	1.6		3.5		2.2		1200		0.034		7.2					
	October	9.6	7.6	188	724	646.5	0.0287	0.02605	0.10	0.1	47.2	35.6	50.0	3.0	2.85	5.8	3.95	4.0	2.35	936	913.5	0.019	0.0175	35.1	35.1				
		5.6		135	569		0.0234		0.10		24.0		41.4	2.7		2.1		0.7		891		0.016		25.1					
	November	9.4	7.2	192	668	656	0.1690	0.0963	0.20	0.15	159.0	94.25	69.0	2.4	2.1	6.0	4.8	4.0	3.6	1170	1061	0.065	0.0415	52.3	28.35				
		5		79	644		0.0236		0.10		29.5		43.7	1.8		3.6		3.2		952		0.018		4.4					
	December	9.6	7.35	210	1010	937	0.0810	0.06975	0.36	0.33	276.0	250	112.0	1.1	1	5.8	4.8	4.8	4.9	1340	1465	0.108	0.116	9.7	7.75				
		5.1		195	864		0.0585		0.3		224.0		100.0	0.9		5		5.0		1590		0.124		5.8					
2020	January	9.3	7.15	63	608	602	0.0331	0.02855	0.10	0.1	125.0	124	50.0	2.1	2.05	3.2	3.05	3.1	3	1020	1020	0.029	0.0255	6.1	5.95				
		5		60	596		0.0240		0.10		123.0		43.4	2.0		2.9		2.9		1020		0.022		5.8					
	February	9.4	7.25	2																									

# BIANNUAL TESTING RESULTS (2018-2020)

Year	Month	Fluoride (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Lithium (mg/L)	Magnesium (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	SAR	Silver (mg/L)
2018	March	0.19	0.271	0.00204	<0.0002	<0.0003	108	<0.0047	<0.003	0.0272	0.0510	<0.0005	0.0565	14.90	<0.005	<0.002	0.0110	0.0050	32.2	-
	October	0.17	0.119	0.00200	0.0002	<0.0003	110	<0.0047	<0.003	0.0128	0.0342	<0.0005	0.0525	17.10	<0.005	<0.002	0.0149	0.0240	10.7	-
2019	March	0.26	1.280	0.00344	<0.0002	<0.0003	62.5	0.0474	<0.003	0.0499	0.3980	0.0008	0.0130	26.40	0.0237	<0.002	0.0250	0.0190	0.63	-
	November	0.15	0.0202	0.00192	0.0003	<0.0004	164	<0.0047	0.0050	0.00785	0.0720	0.0009	0.105	17.15	<0.005	<0.002	0.0181	0.0210	1.45	<0.0047
2020	July	21.2	0.0363	0.0040	<0.0003	<0.0002	77.5	0.0025	<0.00100	0.0123	0.0603	<0.0005	0.00620	23.3	0.0018	<0.0020	0.0144	0.0085	1.04	-
Maximum		21.2	1.280	0.0040	0.0003	<0.0004	164	0.0474	0.005	0.0499	0.3980	0.0009	0.105	26.40	0.0237	<0.002	0.0250	0.0240	32.2	<0.0047
Minimum		0.15	0.0202	0.00192	<0.0002	<0.0002	62.5	0.0025	<0.00100	0.00785	0.0342	<0.0005	0.0062	14.90	0.0018	<0.002	0.0110	0.0050	0.63	<0.0047
Average		4.39	0.345	0.0027	-	-	104.4	-	-	0.0220	0.1231	-	0.0466	19.77	-	-	0.0167	0.0155	9.20	-
# of analysis (Jan 2018 - Oct 2020)		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	1

## Proposed Testing Limit

Analyte	*Daily/*Monthly	Average	Maximum	Current Permit Limit	Proposed Limit
pH	Daily	7.546	10.1	5-10	
	Monthly	7.546	7.95	5-10	
BOD (mg/L)	Daily	169.666	525	135	600
	Monthly	169.666	392.5	90	600
TDS (mg/L)	Daily	1058.765	8580	1634	2200
	Monthly	1058.765	4693	1634	2200
Molybdenum (mg/L)	Daily	0.068	0.387	0.11	1
	Monthly	0.068	0.2545	0.1	1
Boron (mg/L)	Daily	0.172	0.5	2	2
	Monthly	0.172	0.36	0.5	2
Chloride (mg/L)	Daily	107.982	365	158	500
	Monthly	107.982	301	132	500
Sodium (mg/L)	Daily	64.221	170	140	200
	Monthly	64.221	123.5	140	200
Phosphorus (mg/L)	Daily	5.067	27.9	26	30
	Monthly	5.067	17.25	22	30
Total Nitrogen (mg/L)	Daily	5.740	131	11	15
	Monthly	5.740	67.1	7	15
TKN (mg/L)	Daily	3.349	8.3	9	10
	Monthly	3.349	5.85	4	10
Conductivity (µS/cm)	Daily	1463.118	7800	3200	3200
	Monthly	1463.118	4480	1600	3200
Manganese (mg/L)	Daily	0.048	0.332	10	10
	Monthly	0.048	0.171	0.2	10
FOG (mg/L)	Daily	17.806	120	40	150
	Monthly	17.806	68.65	20	150

**Note: AstaReal, Inc. proposes to perform Conductivity testing in-house. Please consider to make Average Monthly and Maximum daily limits the same by making as one parameter.**

\*Daily - Refers Daily limit (Average and Maximum)

\*Monthly - Refers Monthly Limit (Average and Maximum)

## Request to Reduce Testing Frequency

Analyte	Average	Current Permit Limit	Request
<b>Twice Monthly Testing</b>			
Molybdenum (mg/L)	0.068	0.11	Reduce testing to biannual or annual based on three-year data
Sodium	64.221	140.00	Reduce testing to biannual or annual based on three-year data
Phosphorus (mg/L)	5.067	26	Reduce testing to biannual or annual based on three-year data
Total Nitrogen (mg/L)	5.740	11	Reduce testing to biannual or annual based on three-year data
TKN (mg/L)	3.349	9	Reduce testing to biannual or annual based on three-year data
Manganese (mg/L)	0.048	10	Reduce testing to biannual or annual based on three-year data
<b>Biannual Testing</b>			
Calcium (mg/L)	104.4	-	Reduce testing to annual based on three-year data

**Note: AstaReal, Inc. proposes to reduce twice monthly testing (frequency) to once a month and biannual testing to once a year based on three-year data.**

## Request to Eliminate Testing

Analyte	Average	Current Permit Limit	Request
<b>Twice Monthly Testing</b>			
Boron (mg/L)	0.172	2	Eliminate testing based on three-year data
Phosphorus (mg/L)	5.067	26	Eliminate testing based on three-year data
Manganese (mg/L)	0.048	10	Eliminate testing based on three-year data
<b>Biannual Testing</b>			
Fluoride (mg/L)	4.394	-	Eliminate testing based on three-year data
Aluminum (mg/L)	0.3453	-	Eliminate testing based on three-year data
Arsenic (mg/L)	0.0027	-	Eliminate testing based on three-year data
Beryllium (mg/L)	0.00024	-	Eliminate testing based on three-year data
Cadmium (mg/L)	0.0003	-	Eliminate testing based on three-year data
Chromium (mg/L)	0.0128	-	Eliminate testing based on three-year data
Cobalt (mg/L)	0.003	-	Eliminate testing based on three-year data
Copper (mg/L)	0.022	-	Eliminate testing based on three-year data
Iron (mg/L)	0.1231	-	Eliminate testing based on three-year data
Lead (mg/L)	0.0006	-	Eliminate testing based on three-year data
Lithium (mg/L)	0.0466	-	Eliminate testing based on three-year data
Magnesium (mg/L)	19.77	-	Eliminate testing based on three-year data
Nickel (mg/L)	0.0081	-	Eliminate testing based on three-year data
Selenium (mg/L)	<0.002	-	Eliminate testing based on three-year data
Vanadium (mg/L)	0.0167	-	Eliminate testing based on three-year data
Zinc (mg/L)	0.0155	-	Eliminate testing based on three-year data
SAR	9.20	-	Eliminate testing based on three-year data

**Note:** AstaReal, Inc. proposes to reduce analyte testings based on three-year data.



**Cleaning Chemical & Sanitizer**

<b>Chemical</b>	<b>Use</b>
70% IPA	Sanitizing
Soil-Off II	Cleaning
Enforce K	Cleaning
Octave FS	Sanitizing
Synergex	Sanitizing
Oxonia Active	Sanitizing
Quorum Purple	Cleaning
Hydrogen Peroxide	Sanitizing
Biopower-524	Cleaning
Aquacar-714	Cleaning
Quorum Clear V	Sanitizing



STATE OF WASHINGTON

## DEPARTMENT OF ECOLOGY

4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

April 29, 2013

Mr. Takashi Douguchi, President  
AstaReal Technologies, Inc.  
210 E. Third Avenue, Suite C  
Moses Lake, WA 98837

Re: Approval Order No. 13AQ-E482 for the Construction and Operation of an Algae Production and Drying Facility in Moses Lake, WA.

Dear Mr. Douguchi:

The Department of Ecology Air Quality Program has conditionally approved the AstaReal-Moses Lake request for approval to construct and operate an algae production and drying facility in Moses Lake, WA.

There were no requests made for a public comment period during the 15 day period that notice of this application was placed on Ecology's public calendar, so the attached approval is final.

Ecology is committed to streamlining our permitting procedures and to maintaining a high level of staff responsiveness and assistance to permit applicants. To provide Ecology with feedback, please complete the short survey at [http://www.ecy.wa.gov/programs/air/permit\\_register/Permitting\\_Feedback.htm](http://www.ecy.wa.gov/programs/air/permit_register/Permitting_Feedback.htm). This will help us provide better service to you and our other clients.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert Koster", is written over a faint, larger version of the same signature.

Robert Koster, P.E.  
Regional Air Quality Section

RK:lc

Certified Mail # 7011 3500 0001 8626 0916

Enclosures: Approval Order No. 13AQ-E482  
Associated Technical Support Document

EC: Chip Halbert, Landau Consultants



March 26, 2013



Steve Johnston  
Landau Associates, Inc.  
130 2nd Avenue South  
Edmonds, WA 98020

RE: Environmental Review of AstaReal Technologies Algae Facility - EC #13-2  
7761 Randolph Road

Dear Steve:

Pursuant to Chapter 197-11 WAC, State Environmental Policy Act (SEPA) rules, staff has completed the environmental review of this project. As the Responsible Official under SEPA, I have issued a Determination of Non-Significance for the project (see attached). Notice of the DNS was submitted for listing with the Washington State Department of Ecology SEPA Register Unit, and the following agencies were notified:

- Washington State Department of Fish & Wildlife
- Grant County Planning
- Grant County Public Works
- Grant County Health District
- Port of Moses Lake

If you have any questions or if I can be of further assistance, please contact me at 509-764-3747 or [ahenning@cityofml.com](mailto:ahenning@cityofml.com).

Cordially,

Anne Henning  
Senior Planner  
Community Development Department

Enclosure: DNS

# DETERMINATION OF NON-SIGNIFICANCE



---

**Name of proposal:** AstaReal Technologies Algae Facility

**Description of proposal:** Construct a 59,000 SF manufacturing facility in the Heavy Industrial Zone to produce and dry algae for further processing into a food ingredient at a different location.

**Proponent:** AstaReal Technologies, Moses Lake

**Location of proposal:** 7761 Randolph Road, described as Lot 2, ASPI Industrial Park Short Plat; Assessor Parcel #31-2080-000.

**Lead agency:** City of Moses Lake

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(c). The decision was made after review of a completed checklist and other information on file with the lead agency. This information is available to the public upon request.

**Determination of Non-Significance (DNS) Comment Period:** This DNS does not have a comment period as it is issued under 197-11-355 (Optional DNS).

**Responsible Official:** Anne Henning, P.O. Box 1579, Moses Lake, WA, 98837; (509)764-3747

**Date:** March 26, 2013

**Signature:**

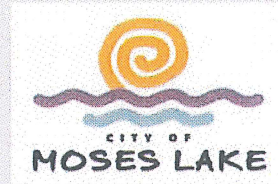
*Anne Henning*



**CITY OF MOSES LAKE**  
(509)764-3750 Fax(509)764-3739

<input type="checkbox"/>	Binding Site Plan.....	\$300
<input checked="" type="checkbox"/>	Conditional Use Permit.....	\$250
<input type="checkbox"/>	Environmental Checklist.....	\$250
<input type="checkbox"/>	Amend Comp Plan/Development Reg's.....	\$200
<input type="checkbox"/>	Planned Unit Development..... Prelim \$200 - Final	\$225
<input type="checkbox"/>	Zoning Variance..... \$100 + fees	
<input type="checkbox"/>	Zone Change.....	\$250
<input type="checkbox"/>	Short Subdivision..... Prelim \$300 - Final	\$200
<input type="checkbox"/>	Major Subdivision..... Prelim \$500 - Final	\$400
<input type="checkbox"/>	Annexation.....	\$400
<input type="checkbox"/>	Right-of-Way Vacation.....	\$200
<input type="checkbox"/>	And Appraisal Fee.....	\$400
<input type="checkbox"/>	Site Plan.....	\$250
<input type="checkbox"/>	Shoreline Application Determination.....	\$100
<input type="checkbox"/>	Shoreline Substantial Dev. and/or CUP.....	\$200
<input type="checkbox"/>	Exempt Variance..... No Addition Fee	
<input type="checkbox"/>	Public Hearing not otherwise specified.....	\$100
<input type="checkbox"/>	Boundary Line Adjustment.....	\$60
<input type="checkbox"/>	Cargo Containers (each).....	\$250
<input type="checkbox"/>		\$60

**LAND USE ACTION APPLICATION**



**CITY USE ONLY**

Date Received \_\_\_\_\_  
By \_\_\_\_\_  
Fee \_\_\_\_\_ Receipt # \_\_\_\_\_  
File # \_\_\_\_\_

**1. PROPERTY OWNER(S)**

NAME North American Foreign Trade Zone Industries, LLC, ~~ASPI~~  
MAILING ADDRESS 1600 Lind Ave SW, Suite 220  
CITY AND STATE Renton, WA ZIP 98055  
TELEPHONE 425-264-1000

I(We) (Signature(s)) *Kim Tode* Date: 1/7/13  
CORPORATE COUNSEL, ASPI  
GROUP, INC., MANAGING  
MEMBER, NAFTA 21, LLC.

do hereby affirm and certify, under penalty of perjury, that I am one (or more) of the owners or owner under contract of the below described property and that the foregoing statements and answers are in all respects true and correct on my information and belief as to those matters, I believe it to be true.

**5. UTILITIES:**

1. WATER SUPPLY: (Name of Utility, if applicable)  
a. Existing City of Moses Lake  
b. Proposed City of Moses Lake
2. SEWAGE DISPOSAL: (Name of Utility, if applicable)  
a. Existing City of Moses Lake  
b. Proposed City of Moses Lake

ACCESS: (Name of road or street from which access is or will be granted)

1. Existing Access: From existing utilities along Randolph Road  
2. Proposed Access: From existing utilities along Randolph Road

**2. APPLICANT**

COMPANY NAME AstaReal Technologies, Inc.  
CONTACT Tatsuma Okubo  
MAILING ADDRESS 210 East Third Ave, Suite C  
CITY AND STATE Moses Lake, WA ZIP 98837  
TELEPHONE 509-855-4370  
SIGNATURE *大久保達夫* DATE 08, Jan, 2013

**6. PROPERTY LOCATION**

**NORTH SOUTH EAST WEST SIDE OF (Circle One)**  
(Road Name): Randolph Road NE  
between (road name): Tyndall Road NE  
and (road name): Road 7 NE  
PROPERTY ADDRESS 7761 Randolph Rd NE, Moses Lake, WA 98837  
SECTION 27 TOWNSHIP 20N RANGE 28E WM

ASSESSOR'S PARCEL NUMBER: 312080000

FULL LEGAL DESCRIPTION OF SUBJECT PROPERTY:  
(Attach separate sheets if too long)

Lot 2 of ASPI Industrial Park Shortplat 10-22 as recorded in Grant County, Washington.

**3. Authorized Rep**

COMPANY NAME Landau Associates, Inc.  
CONTACT Steven A. Johnston  
MAILING ADDRESS 130 2nd Ave S  
CITY AND STATE Edmonds, WA ZIP 98020  
TELEPHONE 425-778-0907

**4. SUMMARY OF REQUEST (List Type of Uses)**

Environmental review of proposal to construct and  
operate an algae production facility for food  
ingredient manufacturing.

**7.**

EXISTING ZONING Industrial  
TOTAL AREA (square feet) OF SITE 427,324

Revised 11-16-10