



YAKIMA REGIONAL CLEAN AIR AUTHORITY

Order Of Approval Permit No. NSRP-22-DI-07

New Source Review Order of Approval for Darigold, Inc. for a Johnston Low Emission 900 Horsepower (Hp) Boiler to replace the former 300 Hp Muira Boiler, Installed as part of NSR Approval, NOC-22-WFF-00

THIS ORDER OF APPROVAL NUMBER NSRP-22-DI-07 IS HEREBY ISSUED TO:

Applicant/Permittee: Darigold, Inc.
Food Processing

Located at: 400 Alexander Rd.
Sunnyside, WA. 98944

Contact: Thomas Rouleau, Plant Mgr.
Darigold, Inc., Sunnyside, WA. 98944
(509) 837-8000

Chris Lammer, Environmental Mgr.
Darigold, Inc.
Boise, ID 83704
(208) 378-7100

IN COMPLIANCE WITH PROVISIONS OF THE STATE OF WASHINGTON CLEAN AIR ACT (Revised Code of Washington (RCW)) CHAPTER 70.94.152, AND WASHINGTON ADMINISTRATIVE CODE (WAC) 173-400-110

ISSUE DATE: December 27, 2007

THIS ORDER OF APPROVAL PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

Construction of the equipment must be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise specified herein. The conditions and limitations of this NSR Order of Approval are attached as follows:



DESCRIPTION OF THE SOURCE

1. Darigold, Inc. (hereafter referred to as the permittee or DI) is the owner and operator of the dairy processing facility at 400 Alexander Rd., Sunnyside, WA. The permittee is proposing to install a 900 Horsepower (Hp) Johnston steam boiler using Natural Gas as the only source of fuel. The boiler will replace the 300 Hp Muira Boiler, installed as part of NSR Approval, NOC-22-WFF-00, and will be installed as described in detail in the operational conditions and the plan and specifications in the permit application.
2. Air emissions from this operation are in the form of Particulate Matter (PM), Volatile Organic Compounds (VOCs) some of which are known as Hazardous Air Pollutants (HAPs) and/or Toxic Air Pollutants (TAPs) in accordance with the Federal Clean Air Act (FCAA) or Washington Administrative Code (WAC), respectively. These emissions are emitted during boiler operation. The City of Sunnyside issued a Mitigated Determination of Nonsignificance (MDNS) pursuant to the State Environmental Policy Act (SEPA) Environmental Checklist, with file number SEPA 00-358.
3. The layout and specifications of the boiler are enclosed in this NSR review as provided by the permittee. TAPs emitted from this operation are listed in WAC 173-460-150 or WAC 173-400-160.
4. Installation of this new boiler, is considered a new source of air contaminants requiring a NSR permit pursuant to the Revised Code of Washington (RCW) 70.94.152 and the Washington Administrative Code (WAC) 173-400-110 and 173-460-040. The facility is located in an area that is in attainment with all state and federal air quality standards for all criteria pollutants.

OPERATIONAL CONDITIONS

5. This Order of Approval permit is for the Johnston steam boiler, at 400 Alexander Rd., Sunnyside, Washington, in accordance with the plan and specifications submitted with the NSR application to YRCAA and specified in Table 1 of this Order of Approval.
6. The former 300 Hp Muira Boiler shall be removed from the premises within 30 days of activation of the new Johnston boiler.
7. As provided in the RCW 70.94.152, WAC 173-400-113 and WAC 173-460-060, Best Available Control Technology (BACT) is required to control all air emissions from any proposed new facility or modified source. The Johnston boiler will be equipped with an Ultra Low NOx burner as shown in the boiler specification sheet submitted to YRCAA. Low NOx burner emissions limited to 9 ppm as per the submitted



specifications with this NSR shall satisfy the BACT requirement for this Order of Approval.

8. The Code of Federal Regulations, 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units is applicable to this installation. The permittee shall comply with all applicable requirements of this subpart.
9. This Permit authorizes the construction of the following equipment:

Table. 1 Authorized Equipment List

Unit No.	Unit Type	Manufacturer	Model and/or Size	Manufacturer Date	Serial Number	Process Capacity (BtuH)	Motor HP
1	Small Industrial Boiler	Johnston	PFTF 900-4G150S	2007	0L105349	36.7 MM	900
2	Burner	Johnston	Fir-40	2007	N/A		900

10. No fugitive emissions shall be released from the subject boiler beyond the property boundary in a quantity that interferes unreasonably with the use and enjoyment of the property upon which the material is deposited or is detrimental to the health, safety or welfare of any person or causes damage to any property or business.
11. The permittee must develop and implement a site-specific operation and maintenance (O&M) plan based on the boiler manufacturer's operations manual as part of BACT. In addition, the existing O&M plan must be updated to reflect this installation. Modification of the O&M plan with the replacement boiler, must be completed within 120 days of the issuance of this Order.
12. Within 120 days from the date of issuance of this order of approval, the permittee shall submit notification to YRCAA indicating that the O&M plan is completed and in place. If the permittee needs to make any future modification to the boiler or its operating procedures, an approval in writing must be granted before such modification takes place. The O&M documents must be updated and implemented to reflect such modification. The permittee shall also notify YRCAA of any Serial Number changes on the Equipment List.
13. All air emissions from this facility shall be in compliance with air emission standards at all times. It is the responsibility of the owner to make sure that air emissions are within all known rules and regulations including the general standards for maximum emissions in accordance with WAC 173-400-040 and 173-460.



14. Opacity as measured by 40 CFR Part 60, Appendix A, Method 9, July 1, 2004 from this 900 Hp Johnston boiler installation must not exceed a zero percent (0%) average for six consecutive minutes in any given one hour period. The permittee shall maintain 0% opacity from the boiler at all times, except during periods of startup, shutdown or malfunction as provided in WAC 173-400-081. If the permittee cannot meet the 0% opacity limit based on the manufacturer or design recommendation, YRCAA should be notified immediately which may result in opacity modification.
15. If opacity greater than 0% is observed, the permittee shall immediately stop the boiler and take corrective action as directed in the O&M plan until visible emissions are below 0% opacity. Corrective actions may include the following:
 - 15.1 Certify and certify that the boiler is performing according to its design functions within the acceptable design parameters and is being operated according to O&M procedures. Therefore, it must be checked against any operational conditions that have resulted in compliance in the past. If the boiler is not performing according to design and O&M procedures, the permittee must take corrective action within 48 hours to correct the problem; or
 - 15 Conduct an opacity evaluation by a certified opacity reader in accordance with 40 CFR 60, Appendix A, Method 9 and such opacity evaluation shall be conducted within 48 hours to verify compliance with the 0% opacity limit. If opacity is greater than 0%, appropriate and timely corrective action must be taken no later than 48 hours to identify and correct the problem causing the opacity. If Method 9 is to be used and the permittee has no certified reader on site, the permittee should call YRCAA and will be advised accordingly.
16. An initial source performance test shall be conducted no later than 180 days after initial startup of the boiler. The permittee shall provide a source test protocol to YRCAA at least thirty days before the test. The parameters must not be changed or altered before the test without written approval from YRCAA.
17. The source test must be conducted pursuant to 40 CFR Part 60, Appendix A, Method 7E for NO_x and Method 10 for CO in accordance with the limits specified in Condition numbers 28 and 29. The permittee must provide the source test results to YRCAA within 30 days after the source test is completed.
18. The permittee shall perform source performance testing to gauge compliance with this NSR approval while the boiler is operating at at least ninety percent (90%) of the boiler's maximum firing rate. If the boiler is tested at a rate less than 90% of the maximum firing rate, then the boiler shall not operate above the firing rate used during the test. This limit shall remain in place until any future source test is performed.



19. In accordance with WAC 173-400-105(4) and YRCAA Regulation 1, Article V, Section 5.11(c), the permittee shall conduct a source test when deemed necessary by YRCAA to demonstrate compliance with NO_x or any other pollutant. YRCAA will inform the permittee of the source test requirement and method at that time.
20. Natural gas shall be the only source of fuel combusted in the boiler.
21. YRCAA staff shall be allowed to enter the facility at reasonable times to inspect for compliance with applicable laws, regulations and the conditions on this Order.

GENERAL CONDITIONS

22. The Johnston boiler shall comply with all other requirements specified in all current federal, state and local air pollution laws and regulations, including, but not limited to, RCW 70.94 (Washington Clean Air Act), WAC 173-400 (General Regulations for Air Pollution Sources), WAC 173-460 (Controls for New Sources of Toxic Air Pollutants), 40 CFR Part 60, Subpart Dc (Standards of Performance for New Stationary Sources), and the YRCAA Regulation 1.
23. All plans, specifications or other information submitted to YRCAA and any further authorizations, approvals, or denials in relation to this project, shall be incorporated herein and made a part of the YRCAA file and this permit.
24. Nothing in this approval shall be construed as obviating compliance with any requirement(s) of law including those imposed pursuant to the Clean Air Washington Act, and rules and regulations thereunder. Any violation(s) of such rules and regulations are penalized in accordance with RCW 70.94.430 and YRCAA Regulation 1, Article 5, Compliance and Enforcement.
25. Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:
 - 25.1. Violation of any terms or conditions of this authorization; or,
 - 25.2. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.
26. The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.
27. Permit requirements apply to the facility owner and/or operator(s) and any contractor or subcontractor performing any activity authorized under this permit. Any person(s), including contractor(s) and/or subcontractor(s), not in compliance with the applicable requirements in this permit are in violation of State and local laws and subject to



appropriate civil and criminal penalties. The facility owner and/or operator, and all contractor(s) or subcontractor(s) are liable for the actions and violations of their employee(s). Any violation committed by a contractor or subcontractor shall be considered a violation by the facility owner and/or operator, and is also a violation by the contractor and/or any subcontractor(s).

28. Laws, rules and regulations may be superseded or revised without notice. It is the permittee's responsibility to stay current with laws rules and regulations governing their business and therefore is expected to comply with all new laws, rules and regulations immediately upon their effective date. New laws, rules and regulation updates will be incorporated into existing permits or upon renewal of said permits.
29. All air emissions from this facility shall be in compliance with air emission standards at all times. It is the responsibility of the owner to make sure that air emissions are within all known and promulgated laws, rules and regulations.
30. Any person feeling aggrieved by this NSR order of approval permit may obtain review thereof by application, within thirty (30) days of receipt of this NSR permit to the Pollution Control Hearings Board (PCHB), P.O. Box 4903, Olympia, WA. 98504-4903. Concurrently, a copy of the application must be sent to the Yakima Regional Clean Air Authority, 6 So. 2nd St., Larson Building, Room 1016. Yakima, WA. 98901. These procedures are consistent with the provisions of Chapter 43.12B RCW and the rules and regulations adopted thereunder.
31. If, or whenever the permittee wants to change the quantity of emissions set forth in Condition # 31, another NSR must be filed with YRCAA before any change takes place and BACT requirements must be satisfied.



EMISSION LIMITS

32. Pursuant to WAC 173-400-110(3)(a), this operation shall use Best Available Control Technology (BACT) to control emissions. The Johnston boiler shall use an Ultra Low-NOx burner, as per the submitted materials with the NSR application.
33. The operations are estimated to generate the following quantities of small particulate matter (PM₁₀), Carbon Monoxide (CO), Total Organic Compounds (TOC), Oxides of Nitrogen and Sulfur (NOx and SOx) and others as shown below. The maximum emission shall not exceed the emissions indicated in Table 2 below:

Table 2. Maximum allowable emissions.

Pollutants	Estimated Yearly Allowable Emissions * (tons)
Small Particulate Matter (PM ₁₀)	1.17
Carbon Monoxide (CO)	12.9
Nitrogen Oxides (NOx)	7.66
Sulfur Oxides (SOx)	0.20
Total Organic Compounds (TOC)	1.69
Volatile Organic Compounds (VOC)	0.84
Methane	0.35
Formaldehyde	0.0115
Lead	0.000077
Sum of HAPs	1.72

(* Based on USEPA compilation of air pollutant emission factors, AP-42. Fifth Ed., 07/98)

34. Emissions of NOx from the boiler shall not exceed nine parts per million by volume, dry and corrected to three percent oxygen (9 ppmvd @ 3% O₂).
35. Emissions of CO from the boiler shall not exceed fifty parts per million by volume, dry and corrected to three percent oxygen (50 ppmvd @ 3% O₂).



MONITORING AND RECORDKEEPING REQUIREMENTS

36. The permittee shall record the annual amount of Natural Gas consumed by the subject boiler and report it along with the plant-wide total in the annual registration submittal on forms provided by the Agency.
37. A responsible official must sign any application form, report, or compliance certification submitted pursuant to this permit.
38. This permit, the required records, logs and a copy of the O&M plan for this plant shall be kept on site and shall always be readily available, organized and accessible when requested by YRCAA personnel or during an inspection. The O&M plan shall be updated to reflect any changes in operating procedures and such changes shall be routinely implemented.
39. The required records in Condition # 36 shall be kept and maintained on-site for the most recent two years from any current date.

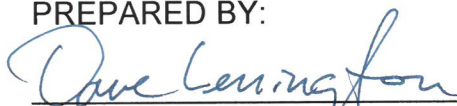


REPORTING REQUIREMENTS

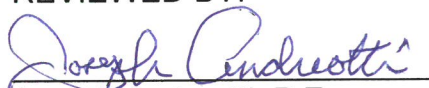
40. This permit and its conditions shall remain in effect in the event of any change in control or ownership of the facility. In the event of any such change in control or ownership of the subject facility, the permittee shall notify the succeeding owner of the permit and conditions and shall notify the YRCAA of the change by filing an "Ownership or Name Change" form within fifteen (15) days of that change. The form can be obtained or requested from YRCAA's office.
41. Results of the source test requirement in this permit shall be submitted to the YRCAA within 30 days following the completion date of the test.
42. The final source test results must be reported to YRCAA in units of ppmvd and potential tons per year for each pollutant.

DATED at Yakima, Washington this 27 day of December, 2007.

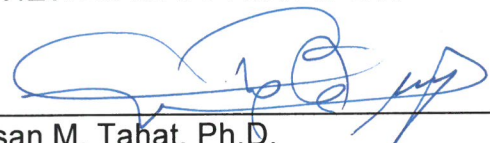
PREPARED BY:


Dave Lenington, MSE
Air Quality Engineer

REVIEWED BY:

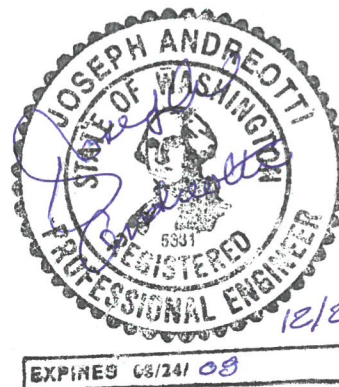

Joseph Andreotti, P.E.
Andreotti and Associates

REVIEWED & APPROVED BY:


Hasan M. Tahat, Ph.D.
Engineering, Planning & Monitoring Division Supervisor

for

Gary W. Pruitt
Air Pollution Control Officer
Yakima Regional Clean Air Authority



Darigold Johnston Boiler Emissions

PTE Emissions for the Johnston Boiler Using Natural Gas						
Darigold, Inc. in Sunnyside						
Calculation by: D.L., 11/20/07						
AP-42 Tab. 1.4-1,2: 7/98						
Boiler # 1 Source rating: (900 Bhp * x BTU/Hr/Bhp x 82% eff. = 36,740,854 BTU/Hr)						
Boiler # 1 YRCAA rating: (900 Bhp * 45,000 BTU/Hr/Bhp * 82% eff. = 33,210,000 BTU/Hr)						
Calculates the annual PTE if only natural gas used for fuel						
N.G. TPY =(mm BTU per hour *8760*(1ft3/1050Btu)*(# Emissions/1.0 mmft3)x 1 ton/2000 lb						
	Pollutants	Emission(E) #/MMft**3	Heat Input MMBtu/Hr	Emissions Tons/Yr	Ibs/year	Diff:
	Uncontrolled Emissions					
PM		7.6	36.74	1.165	2329.53	0
PM10		7.6	36.7	1.165	2329.53	0
SO2		0.6	36.7	0.201	402.30	0
NOx		100	36.7	15.33	30651.7	7.663
N2O		2.2	36.7	0.337	674.34	0
TOC		11	36.7	1.686	3371.68	0
CO		84	36.7	12.87	25747.39	0
Methane		2.3	36.7	0.352	704.99	0
VOC		5.5	36.7	0.843	1685.84	0
Lead		0.0005	36.7	0.000077	0.153	0
Formaldehyde		7.50E-002	36.7	0.012069	24.14	0.0000
Benzo(a)anthracene		1.80E-006	36.7	0.000000	0.001	0.0000
Benzo(a)pyrene		1.20E-006	36.7	0.000000	0.000	0.0000
Benzo(b)fluoranthene		1.80E-006	36.7	0.000000	0.001	0.0000
Benzo(k)fluoranthene		1.80E-006	36.7	0.000000	0.001	0.0000
Dibenzo(a,h)anthracene		1.20E-006	36.7	0.000000	0.000	0.0000
2-Methylnaphthalene		2.40E-005	36.7	0.000004	0.007	0.0000
Benzene		2.10E-003	36.7	0.000322	0.644	0.0000
Butane		2.10E+000	36.7	0.321842	643.68	0.0000
Dischlorobenzenne		1.20E-003	36.7	0.000184	0.368	0.0000
Ethane		3.10E+000	36.7	0.475101	950.20	0.0000
Fluoranthene		3.00E-006	36.7	0.000000	0.001	0.0000
Fluorene		2.80E-006	36.7	0.000000	0.001	0.0000
Hexane		1.80E+000	36.7	0.275865	551.73	0.0000
Naphthalene		6.10E-004	36.7	0.000093	0.187	0.0000
Pentane		2.60E+000	36.7	0.398472	796.94	0.0000
Phenanathrene		1.70E-005	36.7	0.000003	0.005	0.0000
Propane		1.60E+000	36.7	0.245213	490.43	0.0000
Pyrene		5.00E-006	36.7	0.000001	0.002	0.0000
Toluene		3.40E-003	36.7	0.000521	1.042	0.0000
Arsenic		2.00E-004	36.7	0.000031	0.061	0.0000
Barium		4.40E-003	36.7	0.000674	1.349	0.0000
Beryllium		1.20E-005	36.7	0.000002	0.004	0.0000
Cadmium		1.10E-003	36.7	0.000169	0.337	0.0000
Chromium		1.40E-003	36.7	0.000215	0.429	0.0000

Darigold Johnston Boiler Emissions

Cobalt		8.40E-005	36.7	0.000013	0.026		0.0000
Copper		8.50E-004	36.7	0.000130	0.261		0.0000
Manganese		3.80E-004	36.7	0.000058	0.116		0.0000
Mercury		2.60E-004	36.7	0.000040	0.080		0.0000
Molybdenum		1.10E-003	36.7	0.000169	0.337		0.0000
Nickel		2.10E-003	36.7	0.000322	0.644		0.0000
Selenium		2.40E-005	36.7	0.000004	0.007		0.0000
Vanadium		2.30E-003	36.7	0.000352	0.705		0.0000
Zinc		2.90E-002	36.7	0.004444	8.889		0.0000
			Sum HAPs	1.724243	Not including Lead and Formald.		
USING NATURAL GAS and LOW NOx BURNER							
			Boiler # 1 (900 HP, 36,740,854 BTU/Hr)				
	Pollutants	Emission(E)	Heat Input	Emissions			
		#/1E6ft**3	MMBtu/Hr	Tons/Yr	Ib/yr		
PM		7.6	36.7	1.165	2329.5259	Per Johnson Spec. sheet:	
PM10		7.6	36.7	1.165	2329.5259	For the 9 ppm NOx burner:	
SO2		0.6	36.7	0.201	402.3030		
NOx	equiv. to 40 ppm?	50	36.7	7.663	15325.829	9 ppm / 1.727 tpy NOx = x / 7.66	
N2O		2.2	36.7	0.337	674.3365	x =	39.93 ppm
TOC		11	36.7	1.686	3371.6823	(= AP-42 Lo-NOx value)	
CO		84	36.7	12.874	25747.39		
Methane		2.3	36.7	0.352	704.9881		
VOC		5.5	36.7	0.843	1685.8411		
Lead		0.0005	36.7	0.0001	0.1533		
Formaldehyde		7.50E-002	36.7	0.0121	24.1382		
Benzo(a)anthracene		1.80E-006	36.7	0.0000	0.0006		
Benzo(a)pyrene		1.20E-006	36.7	0.0000	0.0004		
Benzo(b)fluoranthene		1.80E-006	36.7	0.0000	0.0006		
Benzo(k)fluoranthene		1.80E-006	36.7	0.0000	0.0006		
Dibenzo(a,h)anthracene		1.20E-006	36.7	0.0000	0.0004		
2-Methylnaphthalene		2.40E-005	36.7	0.0000	0.0074		
Benzene		2.10E-003	36.7	0.0003	0.6437		
Butane		2.10E+000	36.7	0.3218	643.6848		
Dischlorobenzenne		1.20E-003	36.7	0.0002	0.3678		
Ethane		3.10E+000	36.7	0.4751	950.2014		
Fluoranthene		3.00E-006	36.7	0.0000	0.0009		
Fluorene		2.80E-006	36.7	0.0000	0.0009		
Hexane		1.80E+000	36.7	0.2759	551.7298		
Naphthalene		6.10E-004	36.7	0.0001	0.1870		
Pentane		2.60E+000	36.7	0.3985	796.9431		
Phenanathrene		1.70E-005	36.7	0.0000	0.0052		
Propane		1.60E+000	36.7	0.2452	490.4265		
Pyrene		5.00E-006	36.7	0.0000	0.0015		
Toluene		3.40E-003	36.7	0.0005	1.0422		
Arsenic		2.00E-004	36.7	0.0000	0.0613		
Barium		4.40E-003	36.7	0.0007	1.3487		
Beryllium		1.20E-005	36.7	0.0000	0.0037		
Cadmium		1.10E-003	36.7	0.0002	0.3372		
Chromium		1.40E-003	36.7	0.0002	0.4291		
Cobalt		8.40E-005	36.7	0.0000	0.0257		

Darigold Johnston Boiler Emissions

[illegible]