

FAC 7322 ICE-DAIRY PRODUCTS PLANT

FY22 SUC: \$7.69 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3
component prices

FAC 7322 ICE-DAIRY PRODUCTS PLANT

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 45
Average Size 1802.2060000000001

SUC \$7.69

Adjusted Occurences are the occurrences remaining after subtracting Repair/Replacement Overlaps. Overlap reduction removes a repair when it occurs the same year as a replacement.

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace 3'-0" x 7'-0" steel, painted, door	45	1.00 Ea.	\$705.06	\$819.73	1.0000	1	1	\$819.73	\$819.73
Repair 12' x 12' steel roll-up door	10	1.00 Ea.	\$675.90	\$802.22	4.5000	4	4	\$3,208.87	\$3,208.87
Refinish 12' x 12' steel roll-up door	5	1.00 Ea.	\$203.45	\$249.19	9.0000	9	9	\$2,242.70	\$2,242.70
Replace 12' x 12' steel roll-up door	35	1.00 Ea.	\$2,703.58	\$3,208.87	1.2857	1	1	\$3,208.87	\$3,208.87
Debris removal, by hand and visual inspection, metal panel roofing	1	2.30 M.S.F.	\$52.40	\$63.92	45.0000	45	45	\$2,876.24	\$2,876.24
Minor metal roof finish repairs, 2% of roof area, metal panel roofing	5	36.00 S.F.	\$125.75	\$150.87	9.0000	9	9	\$1,357.87	\$1,357.87
Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing	1	2.00 S.F.	\$36.60	\$44.34	45.0000	45	45	\$1,995.52	\$1,995.52
Minor metal roof panel replacement, 2.5% of roof area	20	45.00 S.F.	\$514.24	\$610.74	2.2500	2	2	\$1,221.49	\$1,221.49
Total metal roof panel replacement	30	18.00 Sq.	\$15,212.64	\$18,018.29	1.5000	1	1	\$18,018.29	\$18,018.29
Repair 8" concrete block wall - (2% of walls) painted	25	1.03 C.S.F.	\$1,120.16	\$1,344.99	1.8000	1	1	\$1,344.99	\$1,344.99
Refinish concrete block wall painted	4	16.00 C.S.F.	\$1,614.70	\$1,966.21	11.2500	11	11	\$21,628.32	\$21,628.32
Replace 8" concrete block wall painted	75	16.00 C.S.F.	\$18,535.44	\$22,297.81	0.6000	0	0	\$0.00	\$0.00
Repair steel painted interior door	14	2.00 Ea.	\$586.90	\$683.13	3.2143	3	3	\$2,049.38	\$2,049.38
Refinish 3'-0" x 7'-0" steel painted interior door	4	2.00 Ea.	\$105.17	\$129.57	11.2500	11	11	\$1,425.30	\$1,425.30
Replace 3'-0" x 7'-0" steel painted interior door	60	2.00 Ea.	\$2,436.07	\$2,824.17	0.7500	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	4.00 Ea.	\$1,173.81	\$1,366.26	4.0909	4	4	\$5,465.02	\$5,465.02
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	4.00 Ea.	\$173.46	\$213.00	11.2500	11	10	\$2,342.99	\$2,129.99
Replace 3'-0" x 7'-0" solid core wood door, interior	40	4.00 Ea.	\$1,957.71	\$2,263.24	1.1250	1	1	\$2,263.24	\$2,263.24
Repair 5/8" drywall - (2% of walls)	20	22.16 S.F.	\$37.13	\$45.17	2.2500	2	2	\$90.35	\$90.35
Repair gypsum board ceiling - (2% of ceilings)	20	0.01 C.S.F.	\$5.43	\$6.67	2.2500	2	2	\$13.34	\$13.34
Refinish gypsum board ceiling, up to 12' high	20	0.75 C.S.F.	\$96.82	\$119.69	2.2500	2	1	\$239.38	\$119.69
Replace gypsum board ceiling, up to 12' high	40	0.75 C.S.F.	\$278.47	\$341.97	1.1250	1	1	\$341.97	\$341.97
Replace acoustic tile ceiling, fire-rated	20	2.87 C.S.F.	\$1,504.54	\$1,773.33	2.2500	2	2	\$3,546.67	\$3,546.67
Replace flush valve diaphragm tankless water closet	10	3.00 Ea.	\$78.66	\$97.61	4.5000	4	4	\$390.43	\$390.43
Rebuild flush valve tankless water closet	20	3.00 Ea.	\$541.30	\$652.37	2.2500	2	2	\$1,304.74	\$1,304.74
Unplug clogged line tankless water closet	5	3.00 Ea.	\$655.19	\$819.38	9.0000	9	9	\$7,374.42	\$7,374.42
Replace tankless water closet	35	3.00 Ea.	\$3,858.66	\$4,465.49	1.2857	1	1	\$4,465.49	\$4,465.49

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace tankless flush valve	25	3.00 Ea.	\$756.65	\$888.33	1.8000	1	1	\$888.33	\$888.33
Replace wax ring gasket for tankless water closet	5	3.00 Ea.	\$424.56	\$530.48	9.0000	9	9	\$4,774.31	\$4,774.31
Replace flush valve diaphragm for a urinal	7	2.00 Ea.	\$52.44	\$65.07	6.4286	6	6	\$390.43	\$390.43
Rebuild flush valve for a urinal	20	2.00 Ea.	\$360.87	\$434.91	2.2500	2	2	\$869.83	\$869.83
Unplug line urinal	5	2.00 Ea.	\$290.14	\$362.86	9.0000	9	9	\$3,265.70	\$3,265.70
Replace wall-hung urinal	35	2.00 Ea.	\$1,937.73	\$2,338.21	1.2857	1	1	\$2,338.21	\$2,338.21
Replace washer in spud connection lavatory, vitreous china	7	3.00 Ea.	\$49.39	\$60.24	6.4286	6	6	\$361.44	\$361.44
Replace washer in faucet lavatory, vitreous china	2	3.00 Ea.	\$38.65	\$48.16	22.5000	22	22	\$1,059.42	\$1,059.42
Replace faucets lavatory, vitreous china	10	3.00 Ea.	\$545.18	\$656.27	4.5000	4	4	\$2,625.06	\$2,625.06
Clean out strainer and P trap lavatory, vitreous china	2	3.00 Ea.	\$104.61	\$130.82	22.5000	22	22	\$2,878.12	\$2,878.12
Replace lavatory, vitreous china	35	3.00 Ea.	\$2,017.72	\$2,424.66	1.2857	1	1	\$2,424.66	\$2,424.66
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$12.78	\$15.92	22.5000	22	22	\$350.15	\$350.15
Clean trap sink, iron enamel	3	1.00 Ea.	\$8.57	\$10.72	15.0000	15	15	\$160.78	\$160.78
Replace faucets sink, iron enamel	10	1.00 Ea.	\$181.73	\$218.76	4.5000	4	4	\$875.02	\$875.02
Unstop sink, iron enamel	2	1.00 Ea.	\$41.82	\$52.30	22.5000	22	22	\$1,150.65	\$1,150.65
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	1.00 Ea.	\$636.70	\$757.51	1.2857	1	1	\$757.51	\$757.51
Check / minor repairs drinking fountain	1	1.00 Ea.	\$48.88	\$61.13	45.0000	45	45	\$2,750.97	\$2,750.97
Repair internal leaks drinking fountain	4	1.00 Ea.	\$45.08	\$56.38	11.2500	11	11	\$620.16	\$620.16
Correct water pressure drinking fountain	2	1.00 Ea.	\$41.82	\$52.30	22.5000	22	22	\$1,150.65	\$1,150.65
Replace refrigerant drinking fountain	2	1.00 Ea.	\$32.68	\$38.27	22.5000	22	22	\$841.92	\$841.92
Repair drain leak drinking fountain	4	1.00 Ea.	\$33.92	\$40.53	11.2500	11	9	\$445.88	\$364.81
Replace fountain drinking fountain	10	1.00 Ea.	\$1,281.16	\$1,514.56	4.5000	4	4	\$6,058.24	\$6,058.24
Replace eye wash station, emergency eye wash	25	1.00 Ea.	\$1,114.34	\$1,325.00	1.8000	1	1	\$1,325.00	\$1,325.00
Remove old insulation & replace with new, pipe 3/4", wall 1"	15	400.00 L.F.	\$3,343.33	\$4,128.85	3.0000	3	3	\$12,386.54	\$12,386.54
Overhaul water heater, gas / oil, 70 gallon	5	1.00 Ea.	\$163.70	\$204.73	9.0000	9	9	\$1,842.54	\$1,842.54
Clean & service water heater, gas / oil, 70 gallon	1	1.00 Ea.	\$196.62	\$245.89	45.0000	45	45	\$11,065.00	\$11,065.00
Replace water heater, gas / oil, 70 gallon	12	1.00 Ea.	\$3,315.17	\$3,847.40	3.7500	3	3	\$11,542.21	\$11,542.21
Inspect / check pump / motor operation, lubricate circulation pump, 1/12 HP	0.5	1.00 Ea.	\$8.03	\$10.04	90.0000	90	90	\$903.54	\$903.54
Replace pump / motor assembly circulation pump, 1/12 HP	10	1.00 Ea.	\$1,100.58	\$1,290.00	4.5000	4	4	\$5,159.98	\$5,159.98
Unclog main drain pipe & fittings, cast iron	10	1.00 Ea.	\$46.17	\$57.74	4.5000	4	4	\$230.95	\$230.95
Unclog floor drain, PVC	20	1.00 Ea.	\$47.80	\$59.77	2.2500	2	2	\$119.55	\$119.55
General maintenance & repair drain: roof, scupper, area	1	2.00 Ea.	\$73.98	\$92.51	45.0000	45	45	\$4,163.13	\$4,163.13

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Replace drain: roof, scupper, area	40	2.00 Ea.	\$1,573.86	\$1,824.72	1.1250	1	1	\$1,824.72	\$1,824.72
Repair boiler, gas, 250 MBH	7	1.00 Ea.	\$2,031.05	\$2,390.45	6.4286	6	6	\$14,342.70	\$14,342.70
Replace boiler, gas, 250 MBH	30	1.00 Ea.	\$9,398.04	\$11,210.13	1.5000	1	1	\$11,210.13	\$11,210.13
Repair circulator pump, 1/12 - 3/4 H.P.	5	1.00 Ea.	\$98.13	\$115.73	9.0000	9	6	\$1,041.58	\$694.39
Replace circulator pump, 1/12 - 3/4 H.P.	15	1.00 Ea.	\$3,822.30	\$4,402.23	3.0000	3	3	\$13,206.68	\$13,206.68
Repair terminal reheat, 12" x 24" coil	10	1.00 Ea.	\$89.07	\$111.40	4.5000	4	3	\$445.59	\$334.19
Replace terminal reheat, 12" x 24" coil	15	1.00 Ea.	\$1,757.46	\$2,016.85	3.0000	3	3	\$6,050.54	\$6,050.54
Repair single zone rooftop unit, 7.5 ton	10	1.00 Ea.	\$3,425.72	\$4,067.04	4.5000	4	4	\$16,268.15	\$16,268.15
Replace single zone rooftop unit, 7.5 ton	15	1.00 Ea.	\$11,094.64	\$13,134.98	3.0000	3	3	\$39,404.93	\$39,404.93
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	45.0000	45	45	\$1,931.79	\$1,931.79
Replace sprinkler head	20	17.00 Ea.	\$1,453.89	\$1,788.22	2.2500	2	2	\$3,576.44	\$3,576.44
Maintenance and repair motor starter, up to 600 V	5	1.00 Ea.	\$279.64	\$337.60	9.0000	9	9	\$3,038.38	\$3,038.38
Maintenance and inspection motor starter, up to 600 V	0.5	1.00 Ea.	\$53.98	\$67.63	90.0000	90	90	\$6,086.71	\$6,086.71
Replace starter motor starter, up to 600 V	18	1.00 Ea.	\$805.31	\$958.07	2.5000	2	2	\$1,916.15	\$1,916.15
Maintenance and inspection lighting panel, indoor	3	1.00 Ea.	\$40.64	\$50.92	15.0000	15	15	\$763.82	\$763.82
Replace load center, 100 A	20	1.00 Ea.	\$1,094.16	\$1,336.88	2.2500	2	2	\$2,673.75	\$2,673.75
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	3.00 Ea.	\$215.29	\$269.72	2.2500	2	2	\$539.45	\$539.45
Maintenance and inspection circuit breaker, molded case, 480 V, 1 pole	0.5	3.00 Ea.	\$97.17	\$121.73	90.0000	90	90	\$10,956.07	\$10,956.07
Maintenance and repair safety switch general, 2 pole	8	2.00 Ea.	\$81.29	\$101.84	5.6250	5	5	\$509.21	\$509.21
Maintenance and inspection safety switch, 2 pole	1	1.00 Ea.	\$40.64	\$50.92	45.0000	45	45	\$2,291.47	\$2,291.47
Replace safety switch, 240 V, 2 pole	25	1.00 Ea.	\$391.60	\$477.36	1.8000	1	1	\$477.36	\$477.36
Maintenance and repair receptacles and plugs	20	26.00 Ea.	\$1,098.33	\$1,371.20	2.2500	2	2	\$2,742.41	\$2,742.41
Replace receptacle/plug receptacles and plugs	20	26.00 Ea.	\$1,870.84	\$2,306.11	2.2500	2	2	\$4,612.23	\$4,612.23
Maintenance and repair wiring devices, switches	10	11.00 Ea.	\$464.68	\$580.12	4.5000	4	4	\$2,320.50	\$2,320.50
Replace wiring devices, switches	15	11.00 Ea.	\$719.16	\$893.44	3.0000	3	3	\$2,680.32	\$2,680.32
Replace fluorescent light fixture ballast, 80 W	10	16.00 Ea.	\$1,994.70	\$2,419.80	4.5000	4	4	\$9,679.18	\$9,679.18
Replace lamps (2 lamps), 4', 34 W energy saver	10	16.00 Ea.	\$403.42	\$505.26	4.5000	4	4	\$2,021.05	\$2,021.05
Repair smoke detector	10	6.00 Ea.	\$338.33	\$418.28	4.5000	4	3	\$1,673.14	\$1,254.85
Check operation smoke detector	1	6.00 Ea.	\$97.17	\$121.73	45.0000	45	45	\$5,478.04	\$5,478.04
Replace smoke detector	15	6.00 Ea.	\$1,705.42	\$2,036.77	3.0000	3	3	\$6,110.31	\$6,110.31
Check and repair manual pull station	10	2.00 Ea.	\$175.39	\$215.66	4.5000	4	3	\$862.64	\$646.98
Replace manual pull station	15	2.00 Ea.	\$406.94	\$489.88	3.0000	3	3	\$1,469.65	\$1,469.65
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	9.0000	9	9	\$1,640.47	\$1,640.47

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	90.0000	90	90	\$4,869.37	\$4,869.37	
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.0000	3	3	\$7,175.76	\$7,175.76	
Replace fire alarm bell, 6"	20	2.00 Ea.	\$389.92	\$470.55	2.2500	2	2	\$941.10	\$941.10	
Repair 8" concrete block wall, 1st floor	25	176.10 S.F.	\$4,264.23	\$5,216.65	1.8000	1	1	\$5,216.65	\$5,216.65	
Replace 8" concrete block wall, 1st floor	60	17.61 C.S.F.	\$20,882.90	\$25,237.38	0.7500	0	0	\$0.00	\$0.00	
Repair clay brick wall, 1st floor	25	106.10 S.F.	\$4,559.82	\$5,596.19	1.8000	1	1	\$5,596.19	\$5,596.19	
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	0.84 S.F.	\$10.13	\$11.90	45.0000	45	45	\$535.69	\$535.69	
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	12.00 Ea.	\$1,736.84	\$2,071.31	2.2500	2	2	\$4,142.61	\$4,142.61	
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	12.00 Ea.	\$5,857.58	\$6,942.29	0.9000	0	0	\$0.00	\$0.00	
Repair steel, painted, door	14	1.00 Ea.	\$625.07	\$744.01	3.2143	3	3	\$2,232.02	\$2,232.02	
Refinish 3'-0" x 7'-0" steel, painted, door	4	1.00 Ea.	\$41.40	\$50.87	11.2500	11	11	\$559.53	\$559.53	
			\$161,008.87	\$192,603.60				MR Subtotal	\$384,619.68	
									MR Per Year	\$8,493.98
									PM Total	\$5,364.24
									Subtotal	\$13,858.22
									Total Per Unit	\$7.69

FAC 7322 ICE-DAIRY PRODUCTS PLANT

SUC \$7.69

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 45

Type PM

Average Size 1802.2060000000001

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	2.00	0.52	\$29.18	\$21.50	\$0.00	\$50.68	\$60.05	\$70.88
Door, overhead, electric, roll up, to 24' high x 25' wide, annualized	1.00	4.07	\$40.96	\$168.81	\$0.00	\$209.77	\$264.51	\$321.30
Fire doors, swinging, annualized	2.00	0.78	\$28.64	\$29.12	\$0.00	\$57.76	\$69.36	\$82.39
Urinals, annualized	2.00	0.46	\$12.64	\$22.91	\$0.00	\$35.54	\$43.68	\$52.45
Toilet (vacuum breaker type), annualized	3.00	0.53	\$25.33	\$26.69	\$0.00	\$52.02	\$62.56	\$74.37
Lavatories, annualized	3.00	1.04	\$17.89	\$62.11	\$0.00	\$80.01	\$100.43	\$121.75
Drink fountain, annualized	2.00	1.24	\$41.45	\$62.55	\$0.00	\$104.00	\$126.91	\$151.90
Boiler, hot water, oil, gas, or comb. fired, up to 120 MBH, annualized	1.00	12.53	\$77.34	\$753.25	\$0.00	\$830.60	\$1,064.31	\$1,301.88
Chiller, recip., air cooled, up to 25 tons, annualized	1.00	9.72	\$99.58	\$585.87	\$0.00	\$685.45	\$871.17	\$1,061.86
Air handling unit, 3 thru 24 tons, annualized	1.00	2.06	\$224.44	\$103.96	\$0.00	\$328.40	\$382.03	\$446.89
Backflow prevention device, up to 4", annualized	1.00	0.33	\$13.40	\$19.82	\$0.00	\$33.22	\$40.50	\$48.46
Extinguishing system, wet pipe, annualized	1.00	11.34	\$68.24	\$678.37	\$0.00	\$746.61	\$956.95	\$1,170.70
Hydraulic lift, loading dock, annualized	1.00	1.63	\$24.64	\$55.61	\$0.00	\$80.25	\$99.40	\$119.78
Refrigerator freezer, walk-in box w/external condenser, annualized	1.00	1.47	\$207.43	\$50.23	\$0.00	\$257.66	\$293.47	\$339.65
						\$3,551.97	\$4,435.33	\$5,364.24

FAC 7322 ICE-DAIRY PRODUCTS PLANT

Modeled Component List

CostWorks Release 2021 Qtr 3

B20 Exterior Enclosure	
Steel, Painted	1.0 Ea.
Steel Single, Roll-Up	1.0 Ea.
Concrete Block, 1st floor	17.61 C.S.F.
Aluminum Window, Fixed, 1st floor	12.0 Ea.
B30 Roofing	
Metal Steep Roofing	18.0 Sq.
C10 Interior Construction	
Concrete Block, Painted	16.0 C.S.F.
Steel Painted Interior Doors	2.0 Ea.
Solid Core Interior Doors	4.0 Ea.
Fire Doors, Swinging, annualized	2.0 Each
C30 Interior Finishes	
Gypsum Wall Board	0.75 C.S.F.
Acoustic Tile, fire-rated	2.87 C.S.F.
D20 Plumbing	
Tankless Water Closet	3.0 Ea.
Urinal	2.0 Ea.
Lavatory, Vitreous China	3.0 Ea.
Sink, Iron Enamel	1.0 Ea.
Drinking Fountain	1.0 Ea.
Emergency Eye Wash	1.0 Ea.
Water Heater, Gas / Oil, 70 Gallon	1.0 Ea.
Circulation Pump, 1/12 HP	1.0 Ea.
Drain: Roof, Scupper, Area	2.0 Ea.
D30 HVAC	
Boiler, Gas, 250 MBH	1.0 Ea.
Circulator Pump, 1/12 - 3/4 H.P.	1.0 Ea.
Terminal Reheat Coil, 12" x 24"	1.0 Ea.
Single Zone Air Conditioner, 7.5ton	1.0 Ea.
D40 Fire Protection	
Sprinkler System, Fire Supression, sprinkler head	17.0 Ea.
D50 Electrical	
Motor Starter, Up To 600 V	1.0 Ea.
Load Center, 100 A, maintenance & inspection	1.0 Ea.
Load Center, 100 A, replacement	1.0 Ea.
Safety Switch, General Duty, 240 V, 2 pole	1.0 Ea.
Smoke Detector	6.0 Ea.
Manual Pull Station	2.0 Ea.
Fire Alarm Control Panel	1.0 Ea.
Fire Alarm Bell	2.0 Ea.
E10 Equipment	
Hydraulic Lift, Loading Dock, annualized	1.0 Each
Refrigerator freezer, walk-in, annualized	1.0 Each

FAC 7322 ICE-DAIRY PRODUCTS PLANT
Sustainment by Year
CostWorks Release 2021 Qtr 3

