SEA Airport Quick Facts

- 45.9-million passengers in 2022
- 456,000+ metric tons of air cargo in 2022
- 1200 takeoffs and landings each day
- 33 airlines fly to 92 domestic and 28 international destinations
- Small footprint per passenger:
  SEA 2,500 acres / 49.8M
  DEN 33,531 acres / 64M
- SkyTRAX ‘Best Airport’ in 2022, 2023
- 45+ eateries and 35+ shops as part of Airport Dining & Retail
- 11,500-stall parking garage
- 87,300 direct jobs
- $5.3-billion capital plan over next 5 years
- SAMP: Sustainable Airport Master Plan
SEA Airport Mechanical Systems

– CMP: 130,000#/hr steam boilers and 17,500-tons water-cooled chillers

– Pre-Conditioned Air Plant: 1,200-tons chilled water + 7,750 ton-hours ice storage supplies 30°F glycol chilled water to Pre-Conditioned Air AHUs

– Active Smoke Control in ten areas to lessen chance of evacuating and re-screening passengers on secure side

– 108 Air Handling Units + 2900 air terminal units

– 11+ miles Baggage Handling System

– 105 elevators & 97 escalators

– 84 passenger loading bridges (with 400-Hz electrical, pre-conditioned air, potable water boxes, jet fuel)
Central Mechanical Plant
Pre-Conditioned Air Plant
North Satellite (‘NSAT’) Modernization

- Renovation completed in 2021
- 468,000 gross square feet
- 20 passenger loading bridges
- Active smoke control
- OA 30% higher than code minimum helps pressurize building. OA intakes on land side, not airfield side.
- 7/21-6/22 data showed 58% energy savings better than code baseline
NSAT
Smoke Control
NSAT Rainwater Harvesting System

- Saved 1.4-M gallons in 2021
- 350 micron pre-filter
- (2) 15000-gallon tanks
- Chlorine dosing
- Pump skid with pumps, filters
- Hard-pipe CW backup w/ RPBP
Port of Seattle Job Openings…!

– SEA F&I Senior Mechanical Engineer – HVAC/Plumbing/Fire

– SEA F&I Energy Manager

– (upcoming late 2023/early 2024) SEA F&I Intermediate Mechanical Engineer – Fire Safety including Smoke Control & Fire Suppression/ Sprinklers