

Decarbonization Research Consortium

23 June 2023 / Zoom Chat

11:52:20 From Jim Caley to Everyone:

Please make sure to account for flash point when looking at Methanol and Ethanol.

11:53:15 From Jim Caley to Everyone:

Also - JP5 is more important than F76

11:53:28 From Peter McCauley, NAVSEA to Everyone:

Electrical loads on ships are primarily impacted by ambient air, solar loading, and seawater temperatures. Will the team be building a model to estimate the electrical changes as thermal loads change.

12:10:14 From Saniya LeBlanc (GWU) to Everyone:

@ Jim re JP5 vs F76, we selected F76 for the proposal based on input from the NPS presentations in the consortium. We can certainly change that. Task 1 aims to specify which fuels and energy technologies we should build into the model, so we will revisit this question of JP5 vs F76 for the baseline case.

12:12:57 From Saniya LeBlanc (GWU) to Everyone:

@Peter: Excellent point. We should determine whether we model that connection between electrical change and thermal load changes in the physics based model or as the historical data that informs the predictive control framework. Very good point that we will discuss in Year 1 activities.

12:20:04 From Peter McCauley, NAVSEA to Everyone:

@Saniya We have data at NSWCPD that might enable use to build a response surface to relate seawater, ambient air, and time of day to the change in electrical load from the average.

12:23:12 From Jim to Everyone:

Copy on F76 - please note that biodiesel is not an option to replace with this fuel in your work because we put F76 into jet turbine engines (LM2500) and jet turbine engines do not handle FAME issues well.

12:24:47 From Rick Kamin to Everyone:

Neither due water compensated tanks

12:30:52 From Jim to Everyone:

Rick Kamin needs to be included on all fuel issues. Rick is the Technical Manager for all NAVAL fuel issues. He is in NAVAIR 4.4

12:31:39 From Michele Anderson to Everyone:

Jim - Rick is online for the meeting.

12:58:43 From Dianne Luning Prak USNA to Everyone:

Do you see battery storage as part of this? *[answered at meeting]*