
SLS
SPACE LAUNCH SYSTEM
CHANDLER SCHEUERMANN
ENGINEER AT NASA'S MICHOUD ASSEMBLY FACILITY

1
00:00:00,133 --> 00:00:02,836
Hi, I'm Chandler
Scheuermann, an engineer at NASA's

2
00:00:02,836 --> 00:00:05,338
Michoud assembly facility
in New Orleans, Louisiana.

3
00:00:05,505 --> 00:00:11,911
And this is rocket science and 60 seconds.

4
00:00:11,911 --> 00:00:16,082
More than 700,000 gallons of liquid
hydrogen and liquid oxygen are pumped

5
00:00:16,082 --> 00:00:20,220
into the core stage and upper stage
in order to fully fuel NASA's space

6
00:00:20,220 --> 00:00:23,723
launch system,

7
00:00:23,723 --> 00:00:27,293
liquid hydrogen is chilled to -423 degrees
Fahrenheit.

8
00:00:27,594 --> 00:00:30,830
Liquid oxygen is chilled to -297 degrees
Fahrenheit.

9
00:00:31,064 --> 00:00:33,900
The solution is cryogenic
tanks are specifically designed

10
00:00:33,900 --> 00:00:39,806
to maintain these super cold temperatures.

11
00:00:39,806 --> 00:00:41,941
Pumps at the launch pad

and within the mobile

12
00:00:41,941 --> 00:00:45,345
launcher are used to load the super cold
propellant to our moon rocket.

13
00:00:45,512 --> 00:00:49,382
Liquid hydrogen and liquid oxygen
boil off quickly in the Florida heat.

14
00:00:50,116 --> 00:00:52,919
During tanking operations,
these off gases are vented