
ARS
FIRE PORT
CAUTION

1
00:00:05,349 --> 00:00:03,590
hi i am coach wakata of the iss

2
00:00:07,510 --> 00:00:05,359
expedition 38.

3
00:00:09,350 --> 00:00:07,520
i am in note 3 of the international

4
00:00:12,070 --> 00:00:09,360
space station

5
00:00:14,870 --> 00:00:12,080
on board the iss we recycle water and

6
00:00:17,029 --> 00:00:14,880
here in note 3 the key component the

7
00:00:19,349 --> 00:00:17,039
water recovery system is located behind

8
00:00:22,390 --> 00:00:19,359
those panels

9
00:00:24,630 --> 00:00:22,400
the water recovery system recycles urine

10
00:00:26,950 --> 00:00:24,640
and washing water used by the onboard

11
00:00:29,269 --> 00:00:26,960
astronauts and cosmonauts to provide

12
00:00:31,429 --> 00:00:29,279
portable water supply

13
00:00:32,870 --> 00:00:31,439

is initially reclaimed from urine using

14
00:00:35,110 --> 00:00:32,880
distillation

15
00:00:37,190 --> 00:00:35,120
this process takes place in a rotating

16
00:00:39,350 --> 00:00:37,200
distillation unit that compensates for

17
00:00:41,510 --> 00:00:39,360
the station's absence of gravity

18
00:00:44,790 --> 00:00:41,520
facilitating the separation of liquids

19
00:00:47,190 --> 00:00:44,800
and gases in zero-g environment

20
00:00:49,110 --> 00:00:47,200
after the distillation phase this water

21
00:00:51,350 --> 00:00:49,120
is combined with the other wastewater

22
00:00:54,470 --> 00:00:51,360
streams and enters the water processor

23
00:00:57,189 --> 00:00:54,480
assembly for treatment

24
00:00:59,510 --> 00:00:57,199
here free gas and solids such as hair

25
00:01:02,950 --> 00:00:59,520
are removed from the wastewater before

26
00:01:04,710 --> 00:01:02,960
the flow enters a series of filter units

27
00:01:07,510 --> 00:01:04,720
subsequently any remaining

28
00:01:09,670 --> 00:01:07,520
microorganisms organic inclusions or

29
00:01:12,230 --> 00:01:09,680
other contaminants are removed by high

30
00:01:14,230 --> 00:01:12,240
temperature catalysis

31
00:01:16,710 --> 00:01:14,240
the resulting water meets the highest

32
00:01:22,870 --> 00:01:16,720
standards for portable use

33
00:01:27,190 --> 00:01:24,870
here onboard the iss we turned