



1
00:00:06,200 --> 00:00:02,780
hi I am coach wakata of the ISS

2
00:00:09,049 --> 00:00:06,210
expedition 38 I'm in no three of the

3
00:00:11,839 --> 00:00:09,059
International Space Station onboard the

4
00:00:14,330 --> 00:00:11,849
ISS we recycle water and here in node

5
00:00:16,550 --> 00:00:14,340
three the key component the water

6
00:00:19,599 --> 00:00:16,560
recovery system is located behind those

7
00:00:23,029 --> 00:00:19,609
panels the water recovery system

8
00:00:24,740 --> 00:00:23,039
recycles here in and washing water used

9
00:00:28,609 --> 00:00:24,750
by the onboard astronauts and cosmonauts

10
00:00:30,800 --> 00:00:28,619
to provide potable water supply waters

11
00:00:33,740 --> 00:00:30,810
initially reclaimed from urine using

12
00:00:35,690 --> 00:00:33,750
distillation this process takes place in

13
00:00:37,729 --> 00:00:35,700

a rotating distillation unit that

14

00:00:40,310 --> 00:00:37,739

compensates for the station's absence of

15

00:00:43,420 --> 00:00:40,320

gravity facilitating the separation of

16

00:00:46,400 --> 00:00:43,430

liquids and gases in zero-g environment

17

00:00:48,350 --> 00:00:46,410

after the distillation phase this water

18

00:00:50,660 --> 00:00:48,360

is combined with the other waste water

19

00:00:54,889 --> 00:00:50,670

streams and enters the water processor

20

00:00:57,500 --> 00:00:54,899

assembly for treatment here free gas in

21

00:00:59,660 --> 00:00:57,510

solids such as hair removed from the

22

00:01:03,260 --> 00:00:59,670

wastewater before the flow enters a

23

00:01:05,690 --> 00:01:03,270

series of filter units subsequently any

24

00:01:07,940 --> 00:01:05,700

remaining microorganisms organic

25

00:01:10,780 --> 00:01:07,950

inclusions or other contaminants are

26

00:01:13,370 --> 00:01:10,790

removed by high-temperature catalysis

27

00:01:16,580 --> 00:01:13,380

the resulting water meets the highest

28

00:01:21,420 --> 00:01:16,590

standards for portable use it tastes