FIG. 1

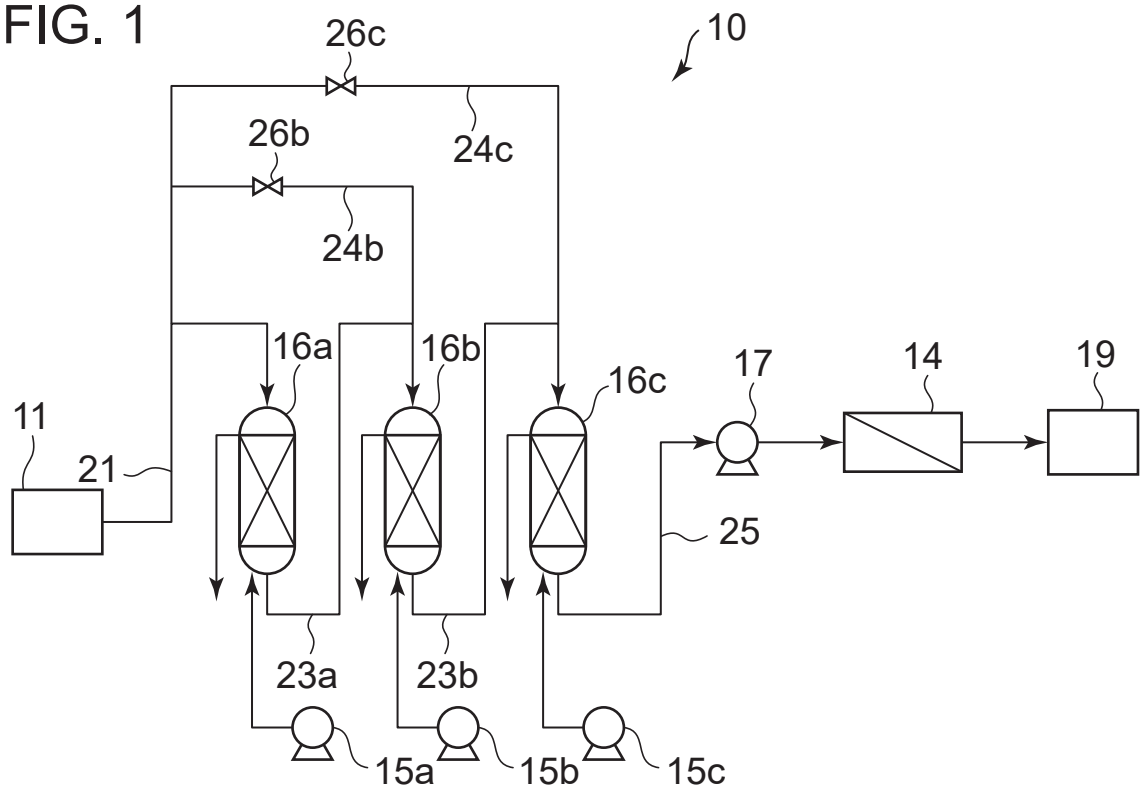
10
26c
24c
26b
24b
16a
16b
16c
17
14
19
11
21
25
23a
23b
15a
15b
15c

FIG. 2

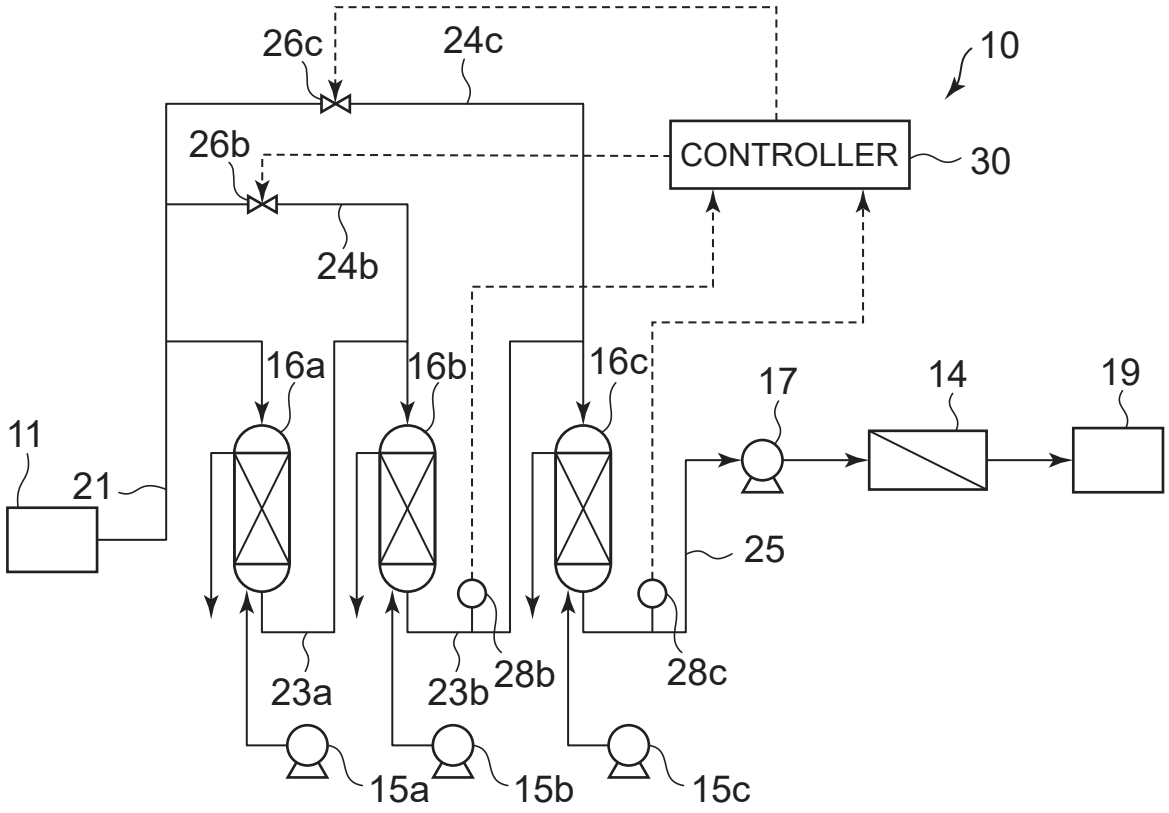
10
26c
24c
CONTROLLER
30
26b
24b
16a
16b
16c
17
14
19
11
21
25
23a
23b
28b
28c
15a
15b
15c

FIG. 3

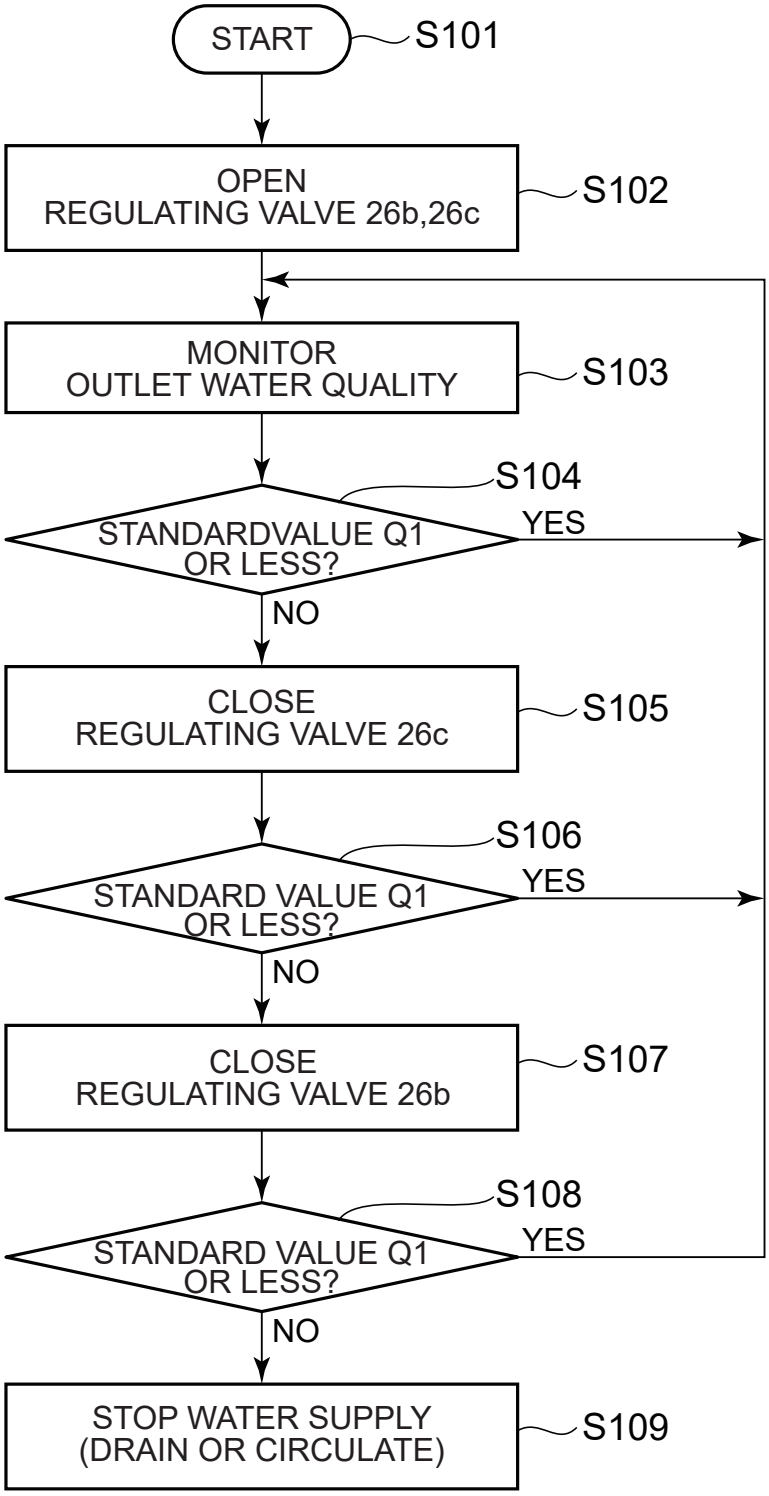
START
S101
OPEN
REGULATING VALVE 26b,26c
S102
MONITOR
OUTLET WATER QUALITY
S103
S104
STANDARDVALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26c
S105
S106
STANDARD VALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26b
S107
S108
STANDARD VALUE Q1
OR LESS?
YES
NO
STOP WATER SUPPLY
(DRAIN OR CIRCULATE)
S109

FIG. 4

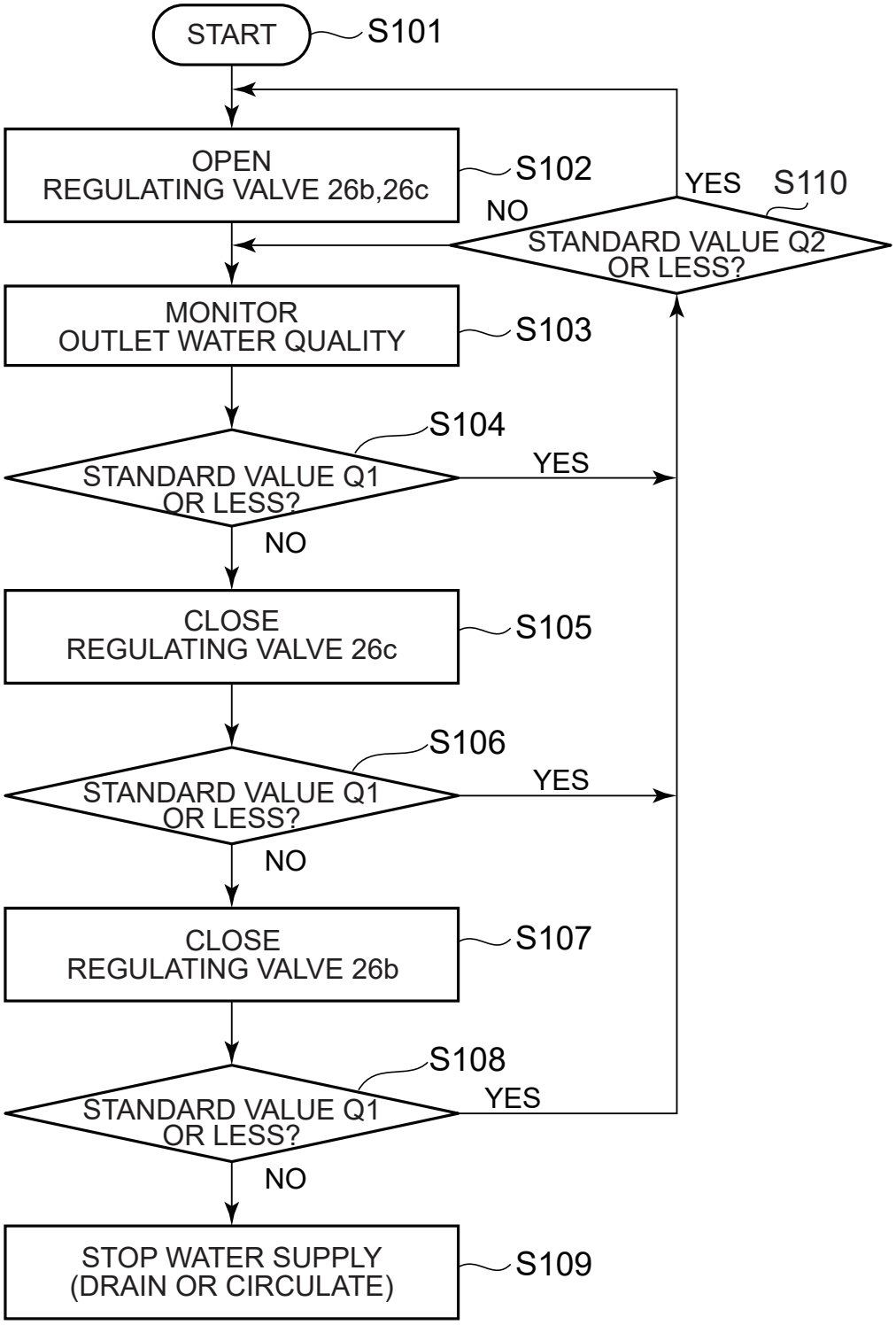
START
S101
OPEN
REGULATING VALVE 26b,26c
S102
MONITOR
OUTLET WATER QUALITY
S103
S104
STANDARD VALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26c
S105
S106
STANDARD VALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26b
S107
S108
STANDARD VALUE Q1
OR LESS?
YES
NO
STOP WATER SUPPLY
(DRAIN OR CIRCULATE)
S109
YES
S110
NO
STANDARD VALUE Q2
OR LESS?

FIG. 5

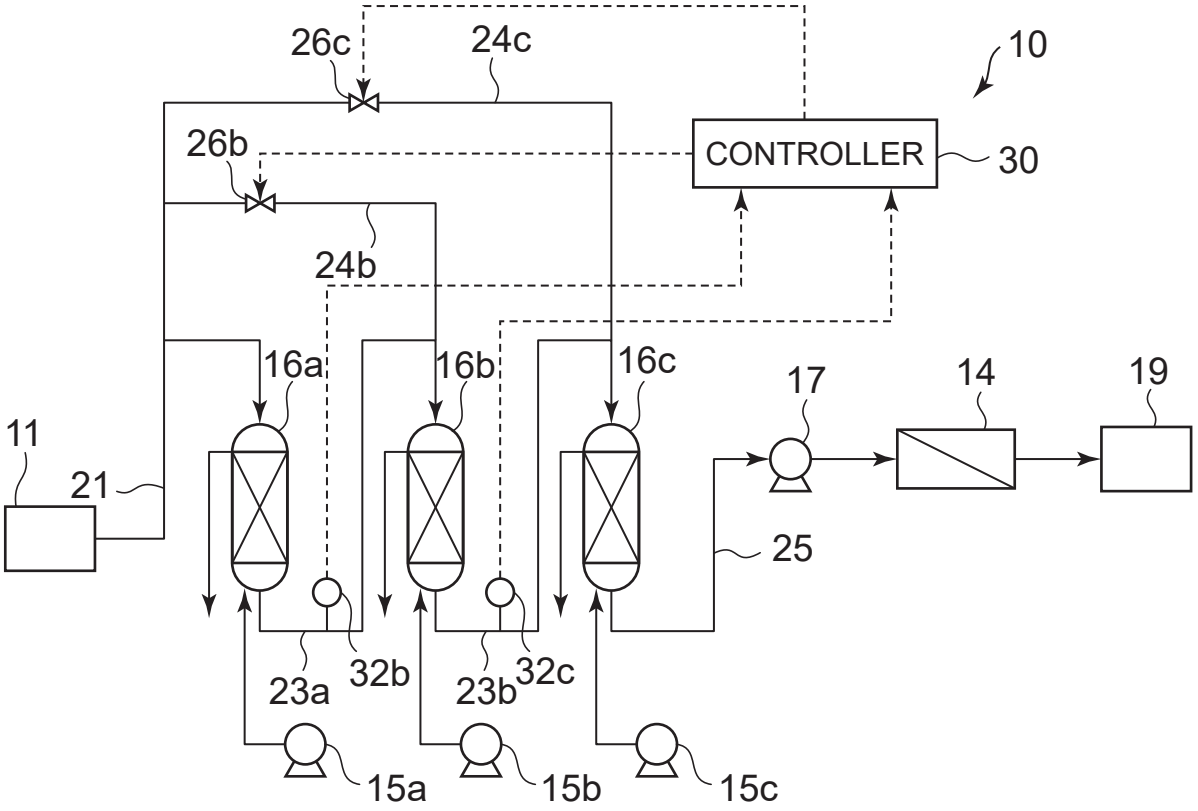
26c
24c
10
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
32b
23b
32c
15a
15b
15c

FIG. 6

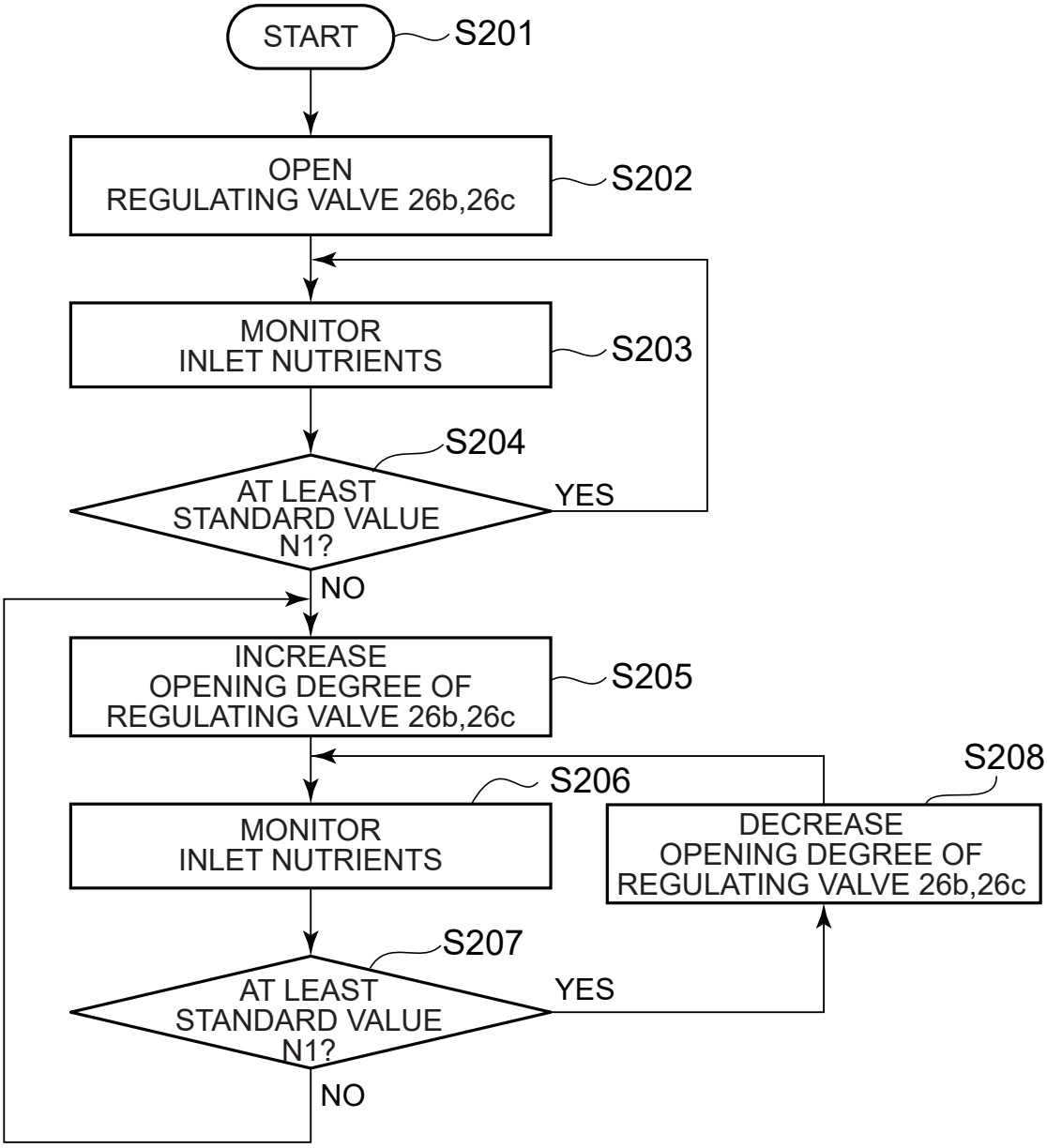
START
S201
OPEN
REGULATING VALVE 26b,26c
S202
MONITOR
INLET NUTRIENTS
S203
S204
AT LEAST
STANDARD VALUE
N1?
YES
NO
INCREASE
OPENING DEGREE OF
REGULATING VALVE 26b,26c
S205
S206
MONITOR
INLET NUTRIENTS
S208
DECREASE
OPENING DEGREE OF
REGULATING VALVE 26b,26c
S207
AT LEAST
STANDARD VALUE
N1?
YES
NO

FIG. 7

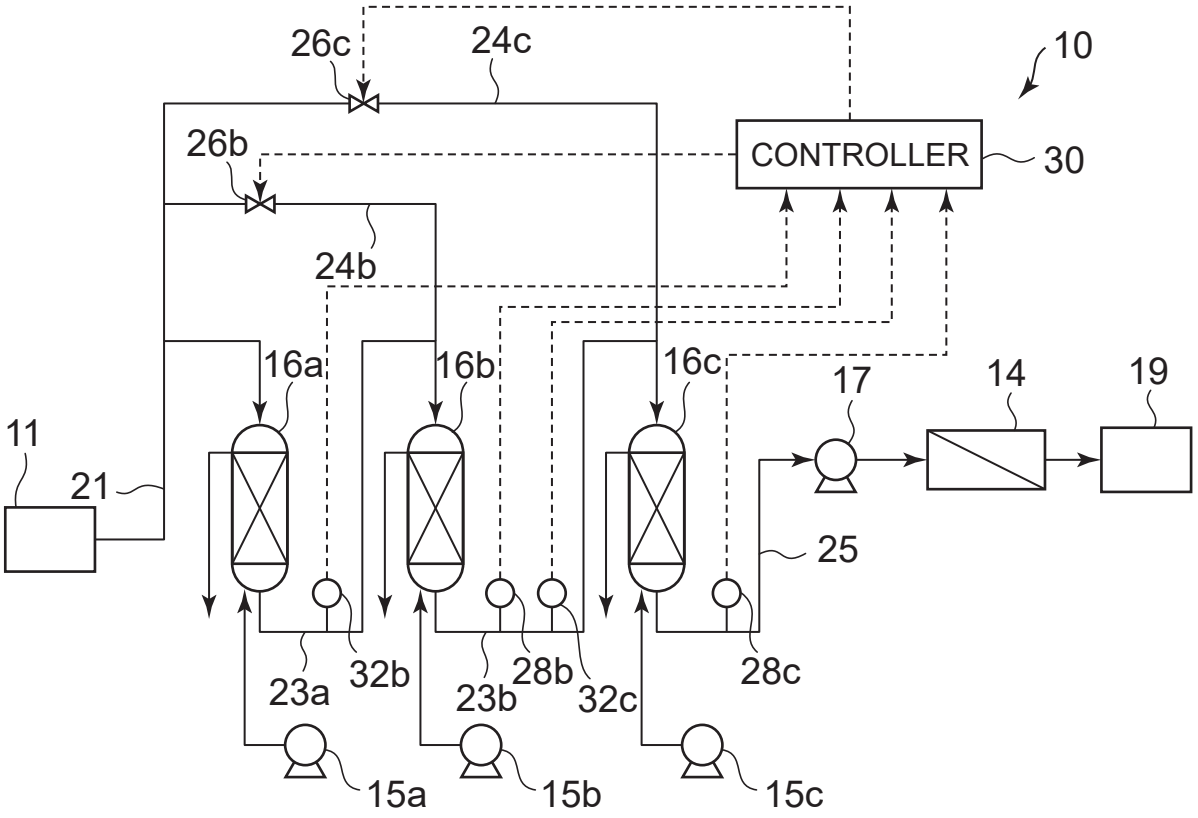
26c
24c
10
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
32b
23b
28b
32c
28c
15a
15b
15c

FIG. 8

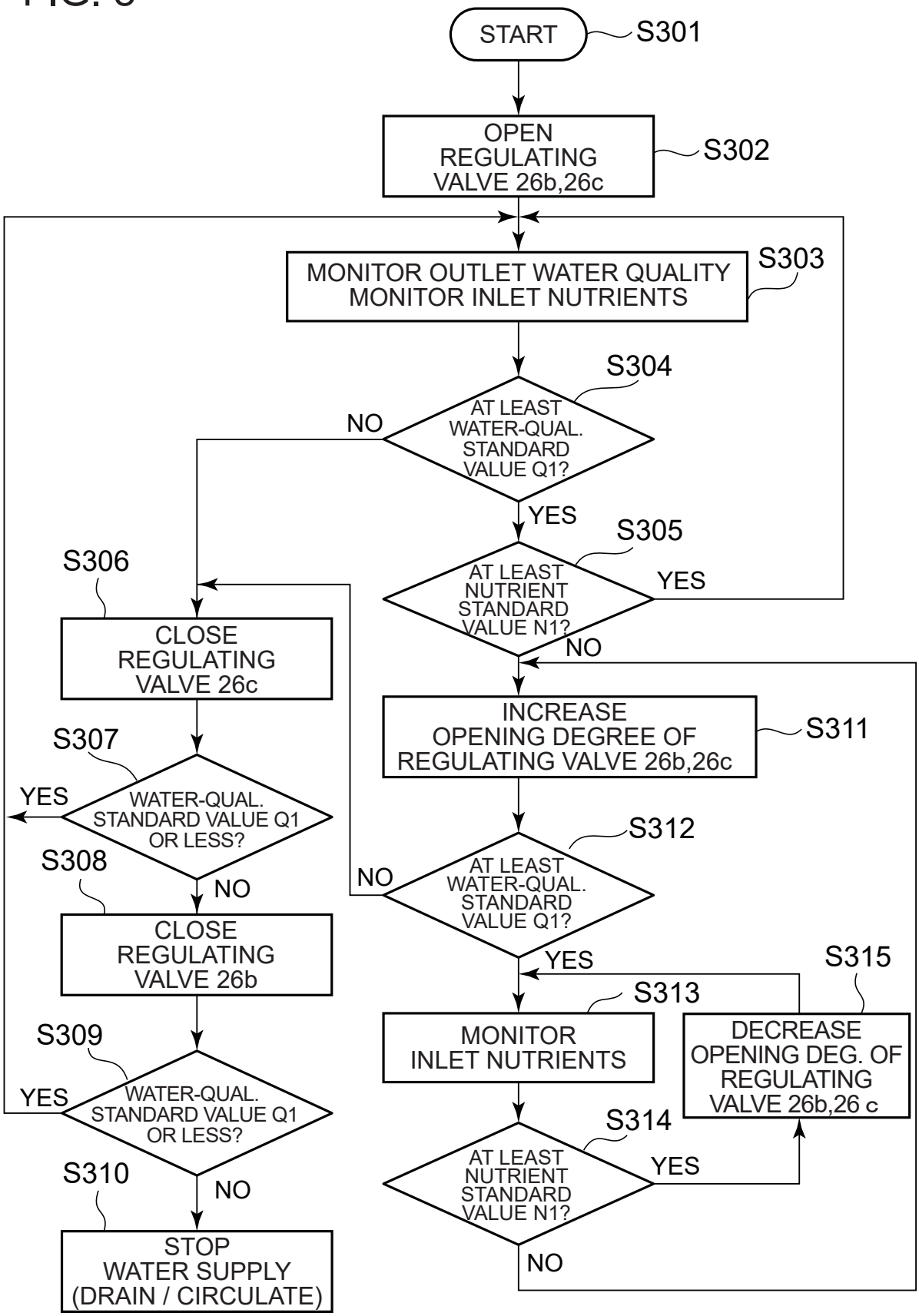
START
S301
OPEN REGULATING VALVE 26b,26c
S302
MONITOR OUTLET WATER QUALITY MONITOR INLET NUTRIENTS
S303
S304
AT LEAST WATER-QUAL. STANDARD VALUE Q1?
NO
YES
S305
AT LEAST NUTRIENT STANDARD VALUE N1?
YES
NO
S306
CLOSE REGULATING VALVE 26c
S307
WATER-QUAL. STANDARD VALUE Q1 OR LESS?
YES
NO
S308
CLOSE REGULATING VALVE 26b
S309
WATER-QUAL. STANDARD VALUE Q1 OR LESS?
YES
NO
S310
STOP WATER SUPPLY (DRAIN / CIRCULATE)
INCREASE OPENING DEGREE OF REGULATING VALVE 26b,26c
S311
S312
AT LEAST WATER-QUAL. STANDARD VALUE Q1?
NO
YES
S313
MONITOR INLET NUTRIENTS
S314
AT LEAST NUTRIENT STANDARD VALUE N1?
YES
NO
S315
DECREASE OPENING DEG. OF REGULATING VALVE 26b,26 c

FIG. 9

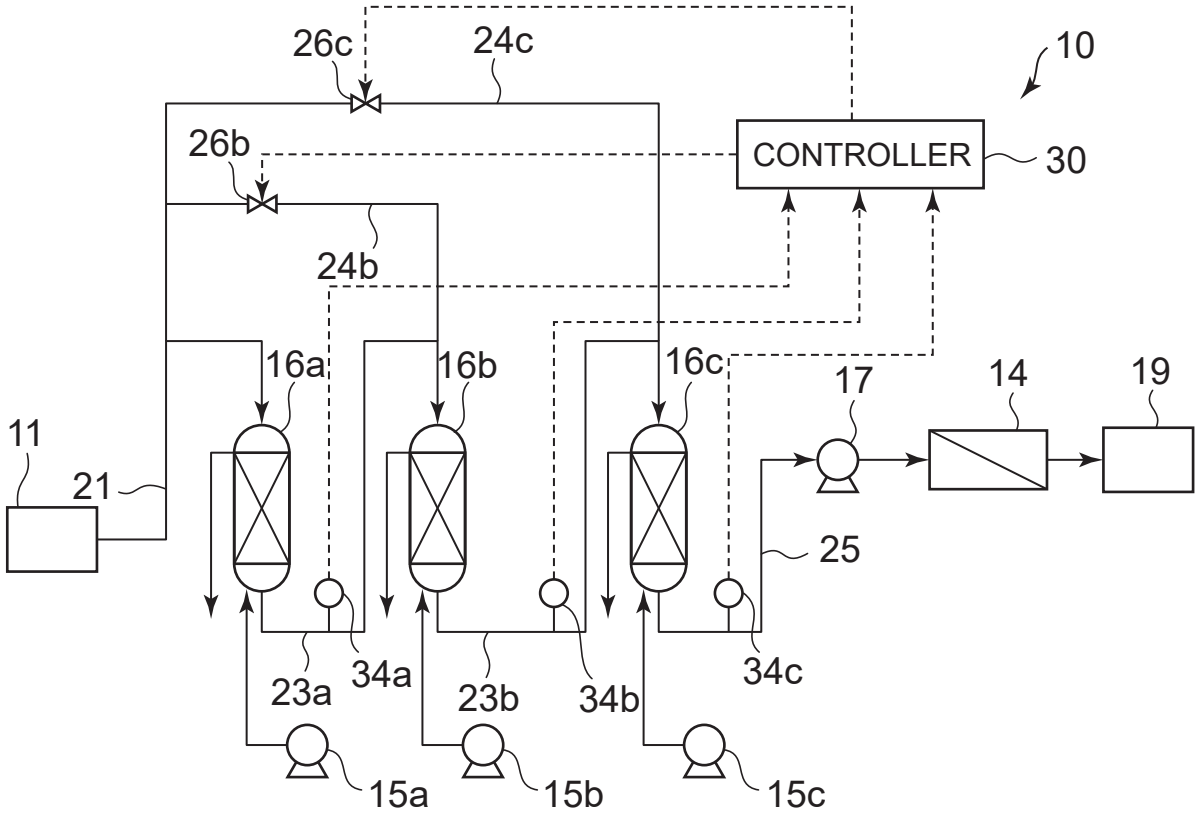
26c
24c
10
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
34a
23b
34b
34c
15a
15b
15c

FIG. 10

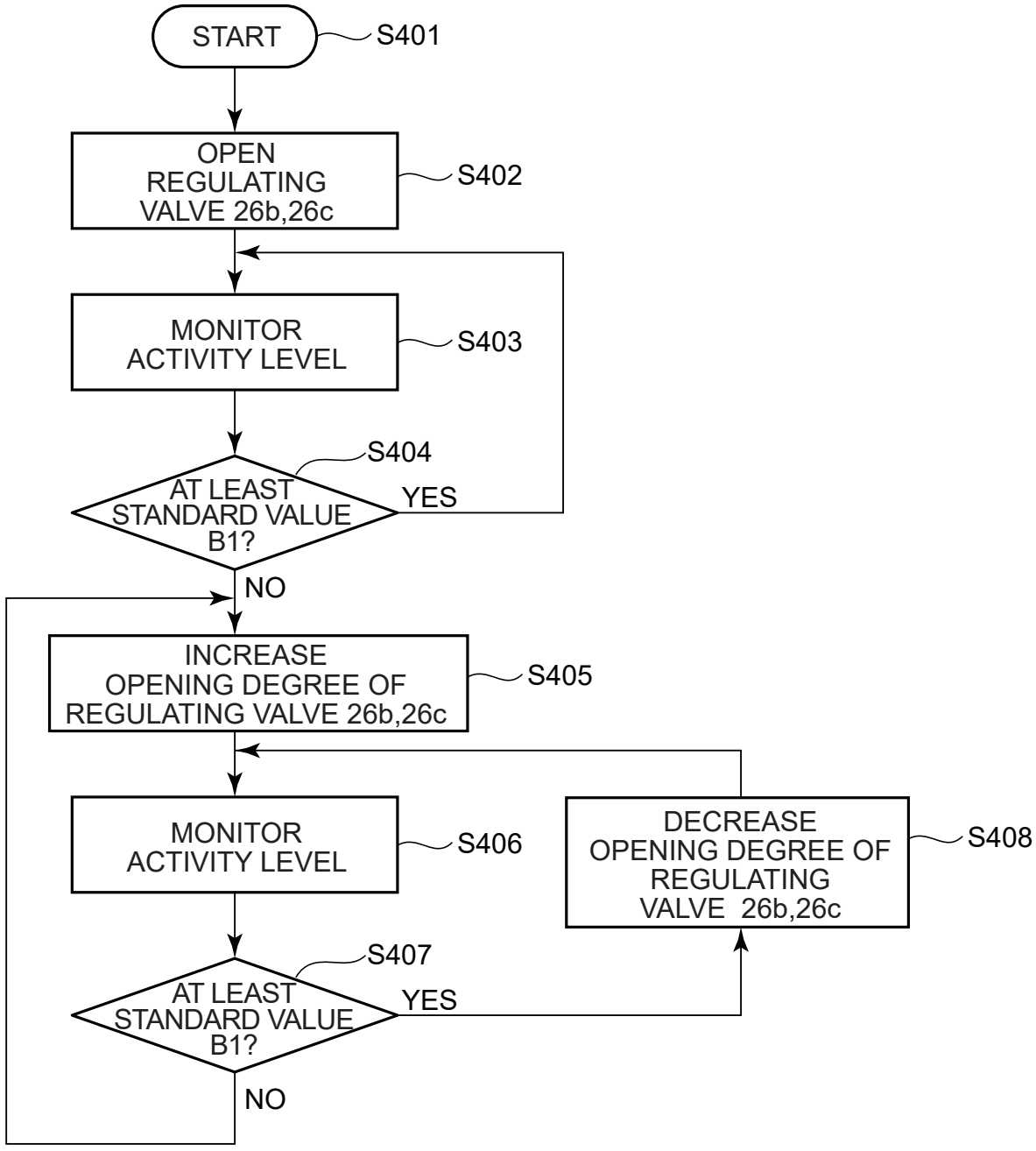
START
S401
OPEN REGULATING VALVE 26b,26c
S402
MONITOR ACTIVITY LEVEL
S403
S404
AT LEAST STANDARD VALUE B1?
YES
NO
INCREASE OPENING DEGREE OF REGULATING VALVE 26b,26c
S405
MONITOR ACTIVITY LEVEL
S406
S407
AT LEAST STANDARD VALUE B1?
YES
NO
DECREASE OPENING DEGREE OF REGULATING VALVE 26b,26c
S408

FIG. 11

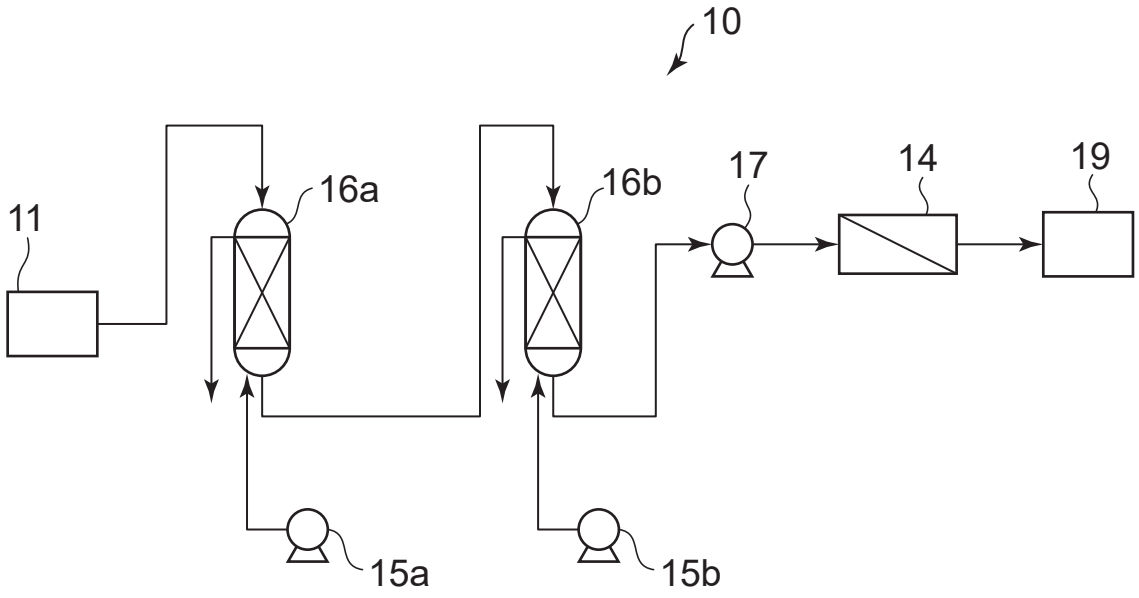

FIG. 1

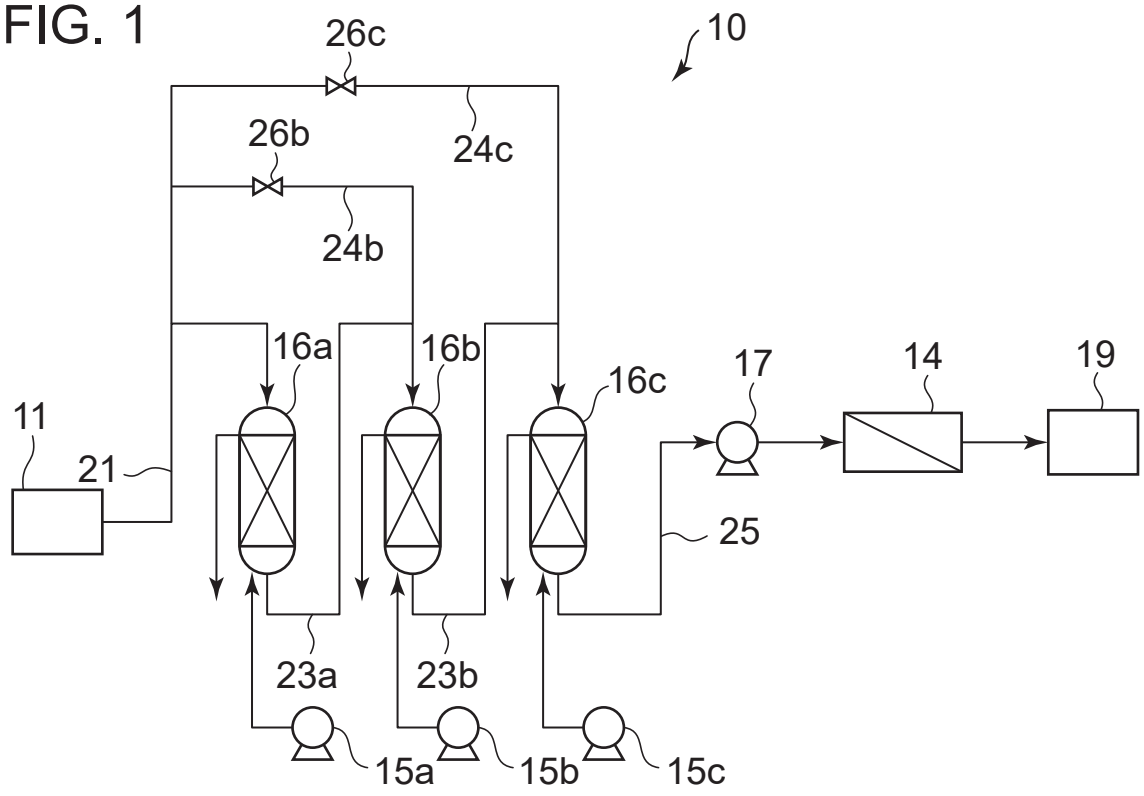
10
26c
26b
24c
24b
16a
16b
16c
17
14
19
11
21
25
23a
23b
15a
15b
15c

FIG. 2

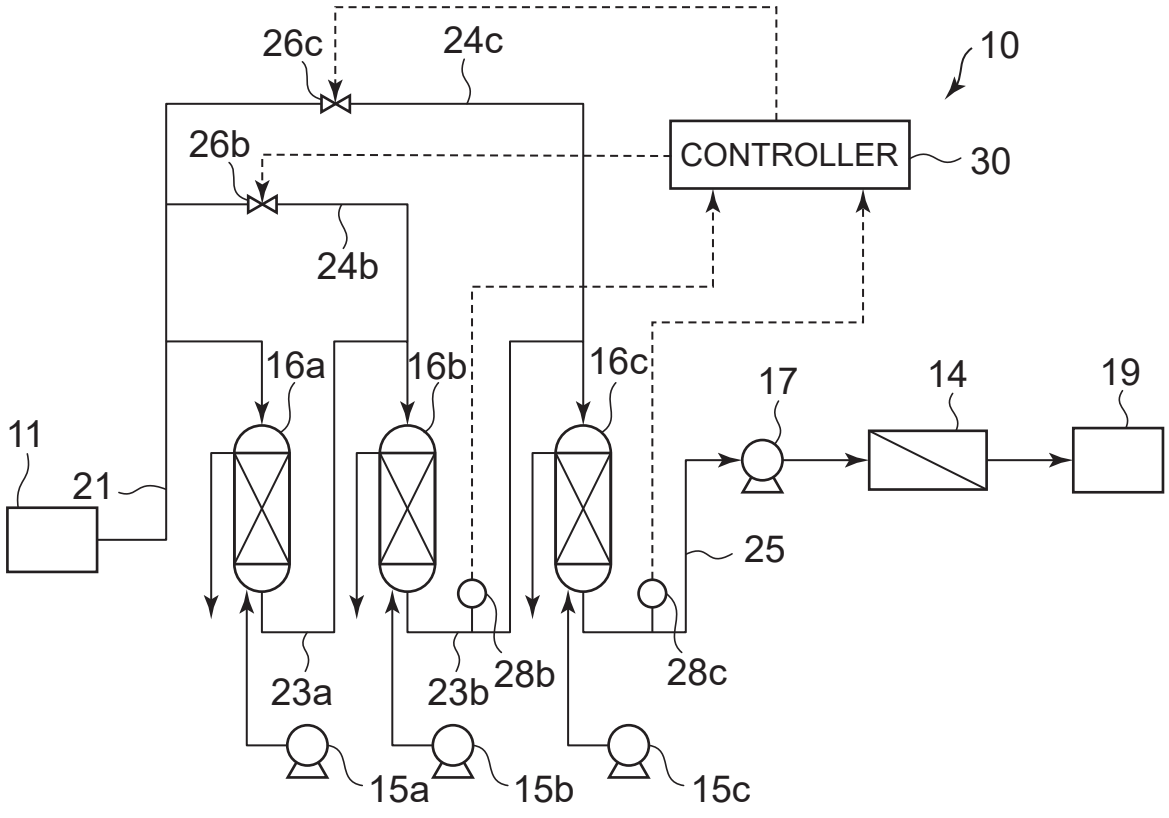
10
26c
24c
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
23b
28b
28c
15a
15b
15c

FIG. 3

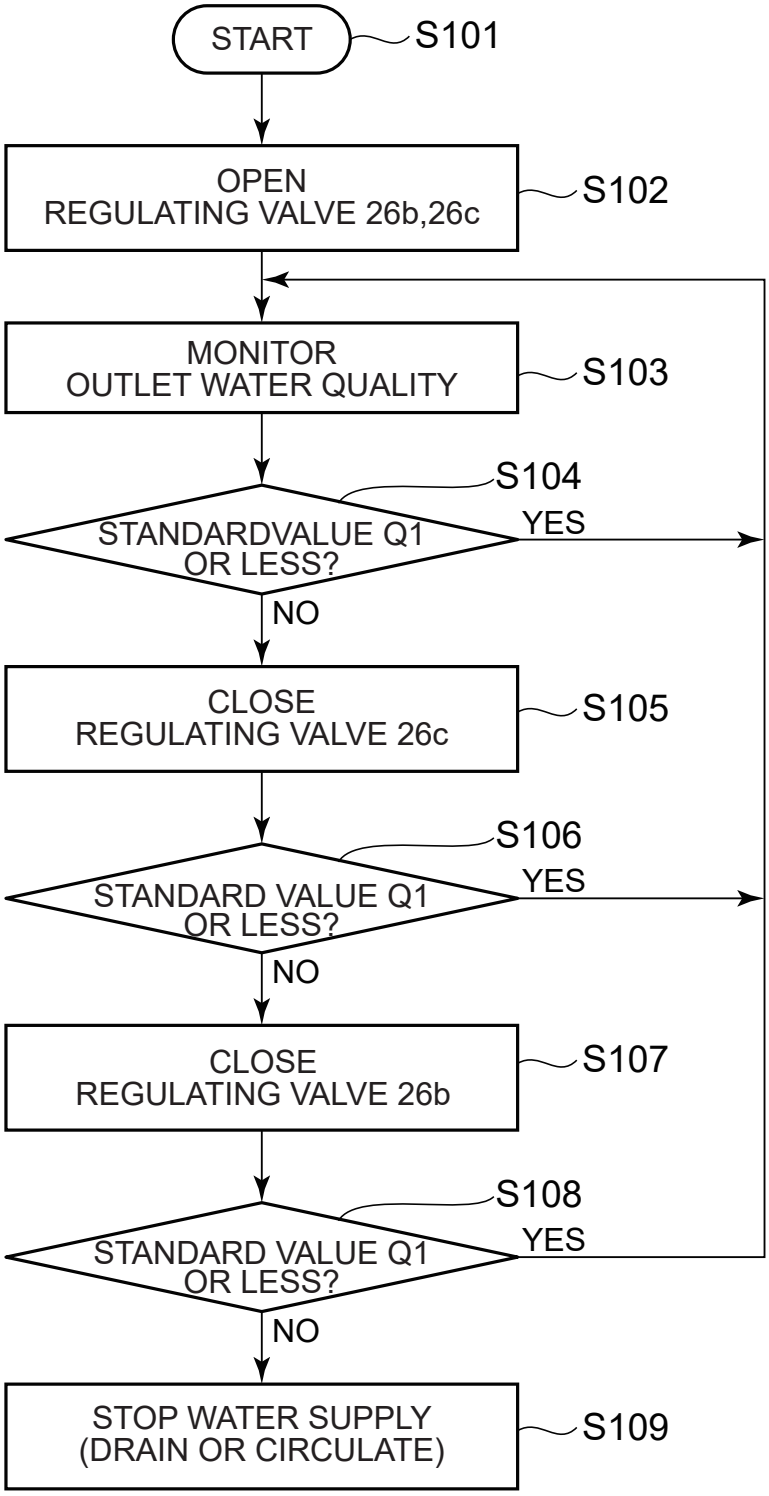
START
S101
OPEN
REGULATING VALVE 26b,26c
S102
MONITOR
OUTLET WATER QUALITY
S103
S104
STANDARDVALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26c
S105
S106
STANDARD VALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26b
S107
S108
STANDARD VALUE Q1
OR LESS?
YES
NO
STOP WATER SUPPLY
(DRAIN OR CIRCULATE)
S109

FIG. 4

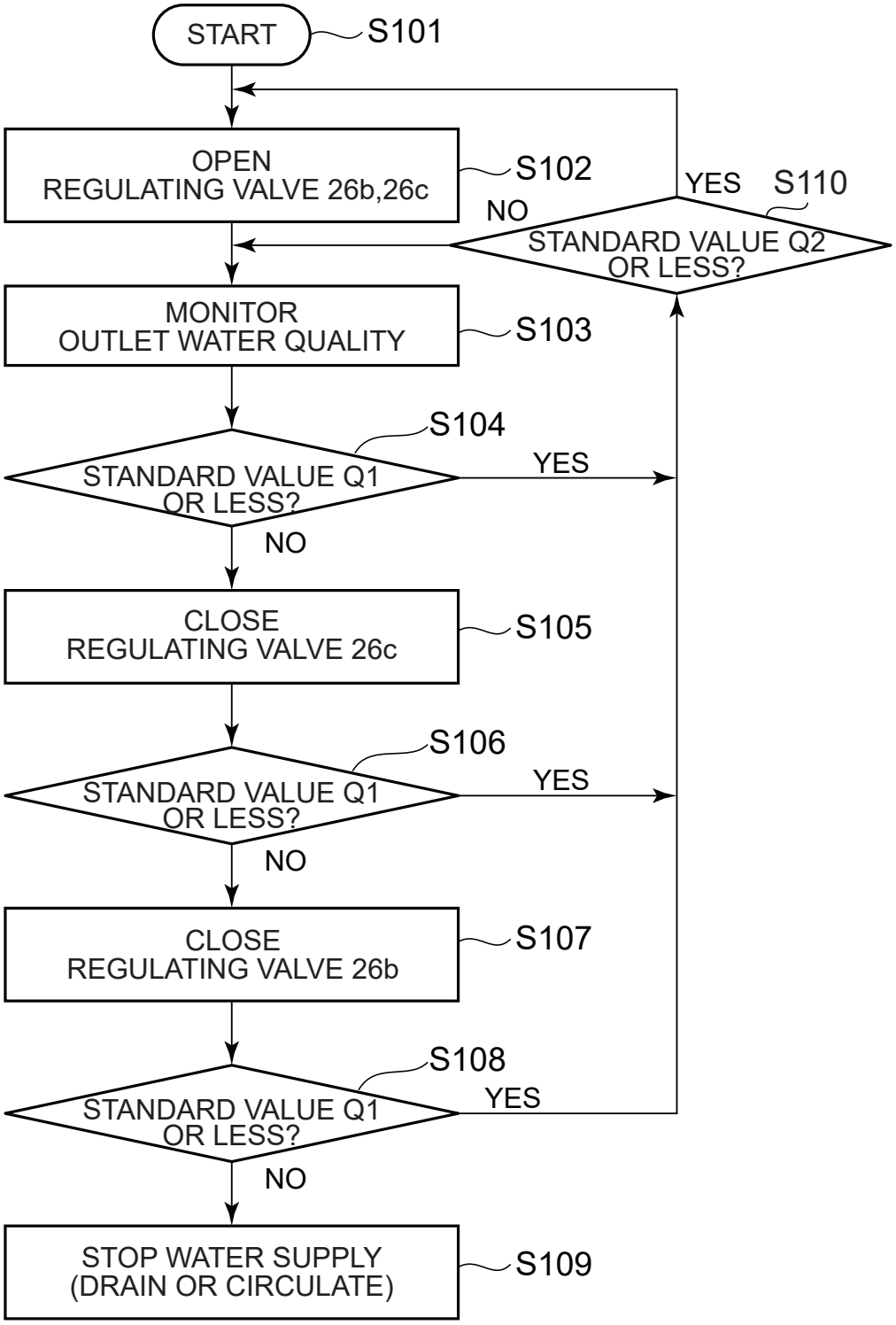
START
S101
OPEN
REGULATING VALVE 26b,26c
S102
YES
S110
NO
STANDARD VALUE Q2
OR LESS?
MONITOR
OUTLET WATER QUALITY
S103
S104
STANDARD VALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26c
S105
S106
STANDARD VALUE Q1
OR LESS?
YES
NO
CLOSE
REGULATING VALVE 26b
S107
S108
STANDARD VALUE Q1
OR LESS?
YES
NO
STOP WATER SUPPLY
(DRAIN OR CIRCULATE)
S109

FIG. 5

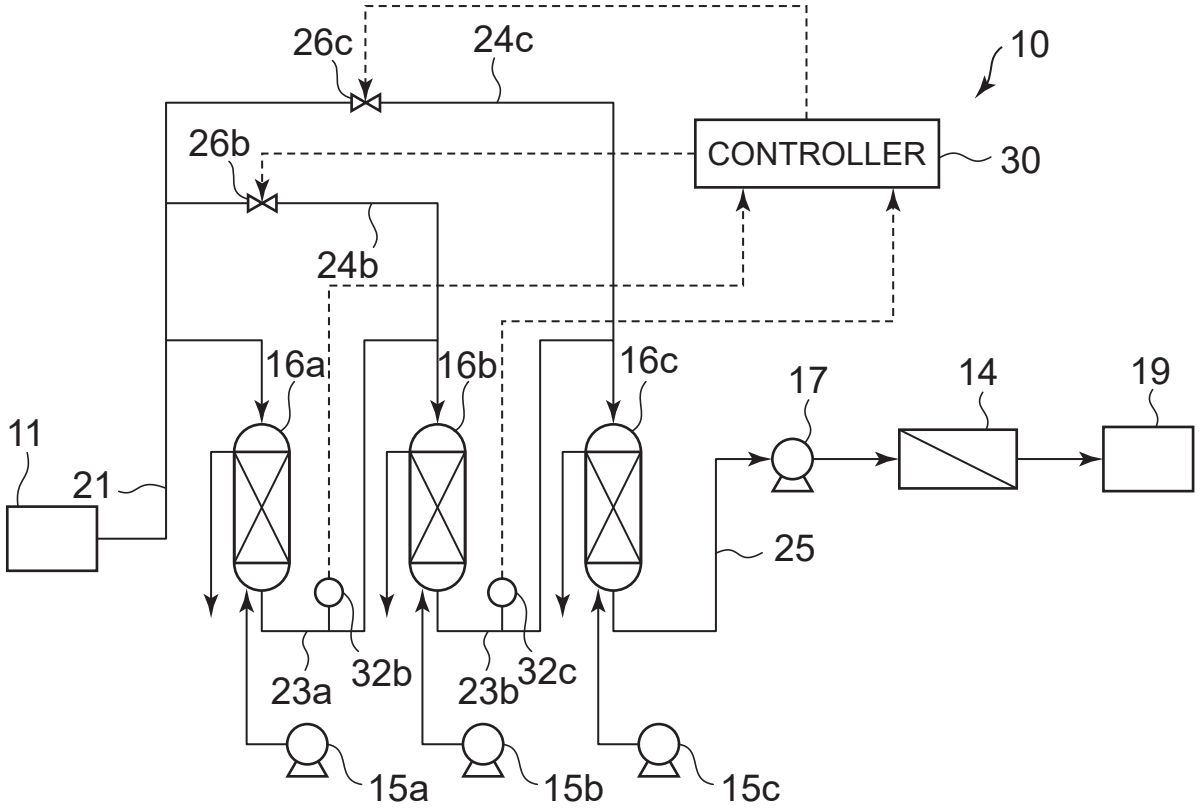
26c
24c
10
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
32b
23b
32c
15a
15b
15c

FIG. 6

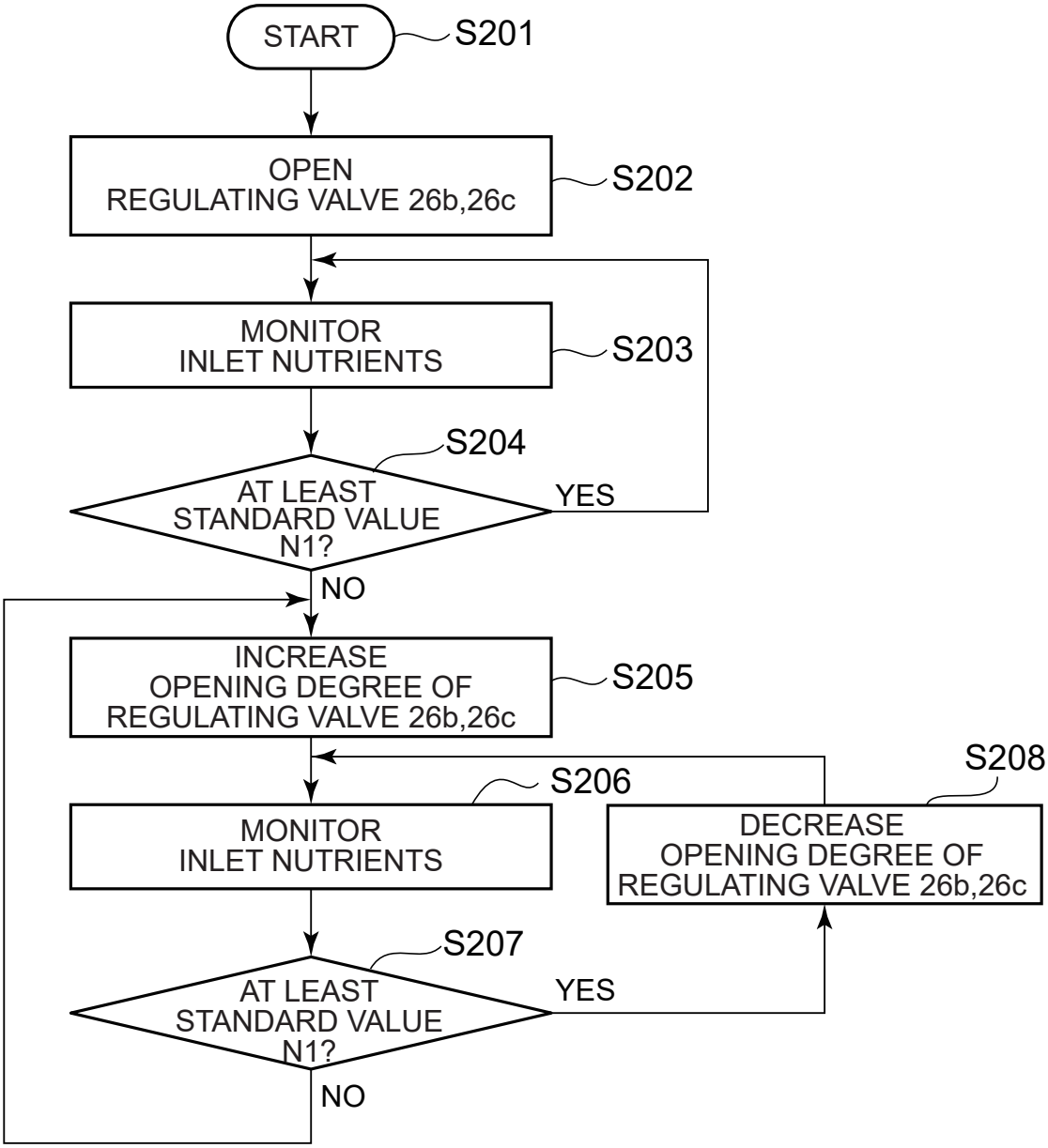
START
S201
OPEN
REGULATING VALVE 26b,26c
S202
MONITOR
INLET NUTRIENTS
S203
S204
AT LEAST
STANDARD VALUE
N1?
YES
NO
INCREASE
OPENING DEGREE OF
REGULATING VALVE 26b,26c
S205
S206
MONITOR
INLET NUTRIENTS
S208
DECREASE
OPENING DEGREE OF
REGULATING VALVE 26b,26c
S207
AT LEAST
STANDARD VALUE
N1?
YES
NO

FIG. 7

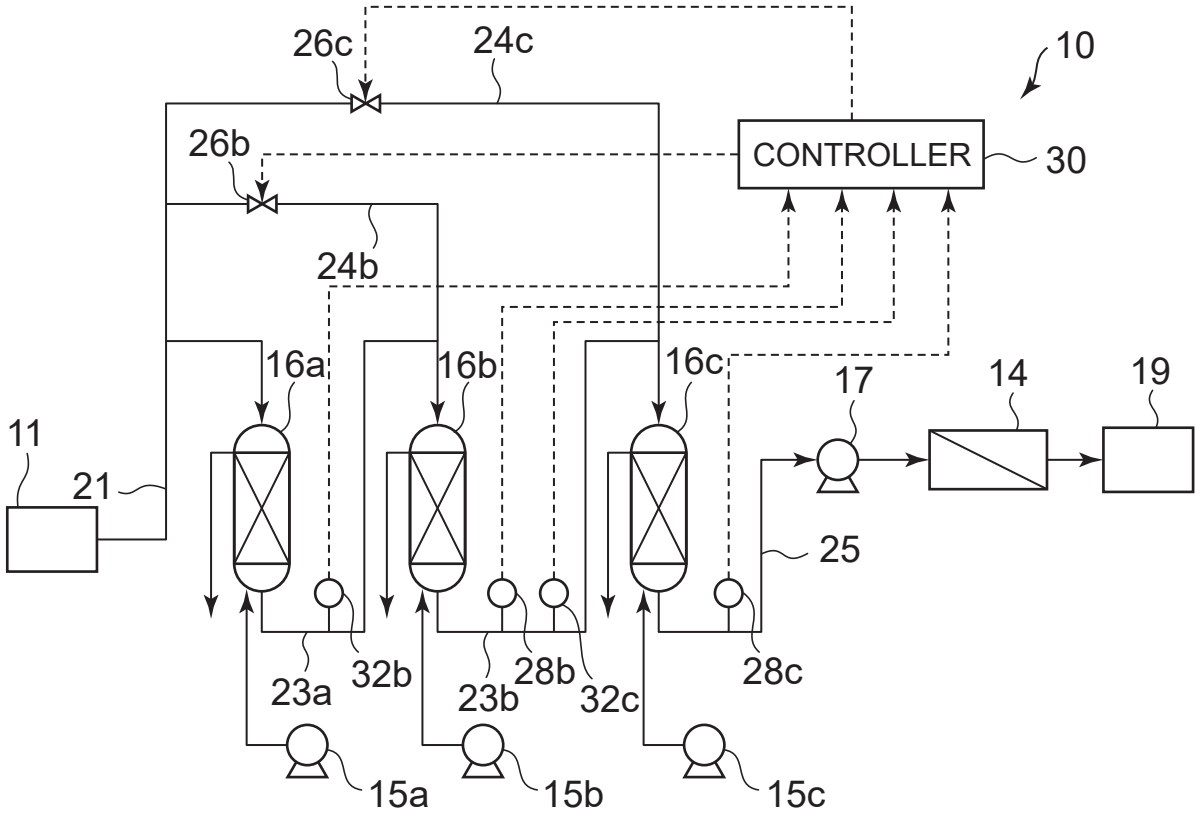
26c
24c
10
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
32b
23b
28b
32c
28c
15a
15b
15c

FIG. 8

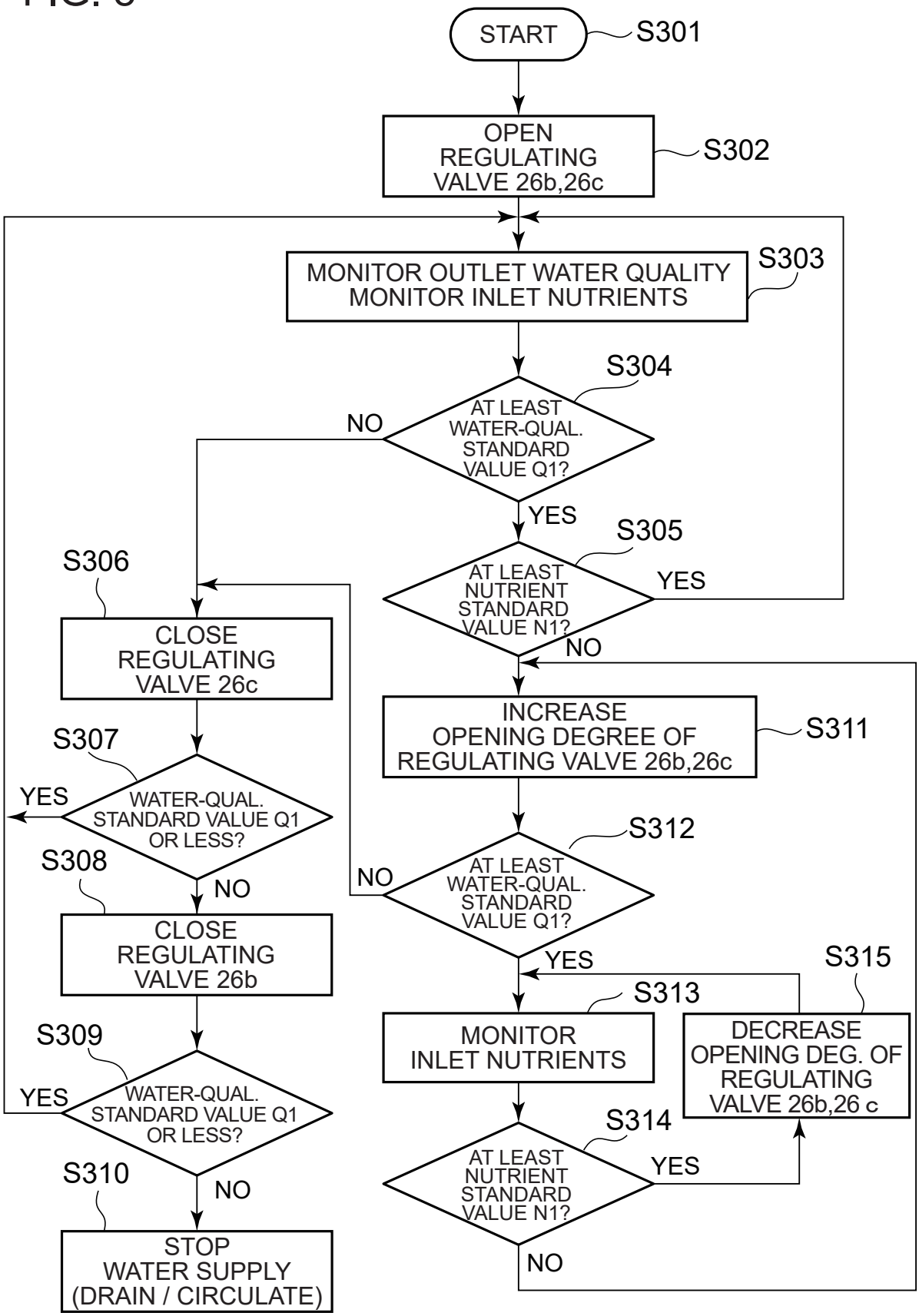
START
S301
OPEN REGULATING VALVE 26b,26c
S302
MONITOR OUTLET WATER QUALITY MONITOR INLET NUTRIENTS
S303
S304
AT LEAST WATER-QUAL. STANDARD VALUE Q1?
NO
YES
S305
AT LEAST NUTRIENT STANDARD VALUE N1?
YES
NO
S306
CLOSE REGULATING VALVE 26c
S307
WATER-QUAL. STANDARD VALUE Q1 OR LESS?
YES
S308
NO
CLOSE REGULATING VALVE 26b
S309
WATER-QUAL. STANDARD VALUE Q1 OR LESS?
YES
S310
NO
STOP WATER SUPPLY (DRAIN / CIRCULATE)
INCREASE OPENING DEGREE OF REGULATING VALVE 26b,26c
S311
S312
AT LEAST WATER-QUAL. STANDARD VALUE Q1?
NO
YES
S313
MONITOR INLET NUTRIENTS
S314
AT LEAST NUTRIENT STANDARD VALUE N1?
YES
NO
S315
DECREASE OPENING DEG. OF REGULATING VALVE 26b,26 c

FIG. 9

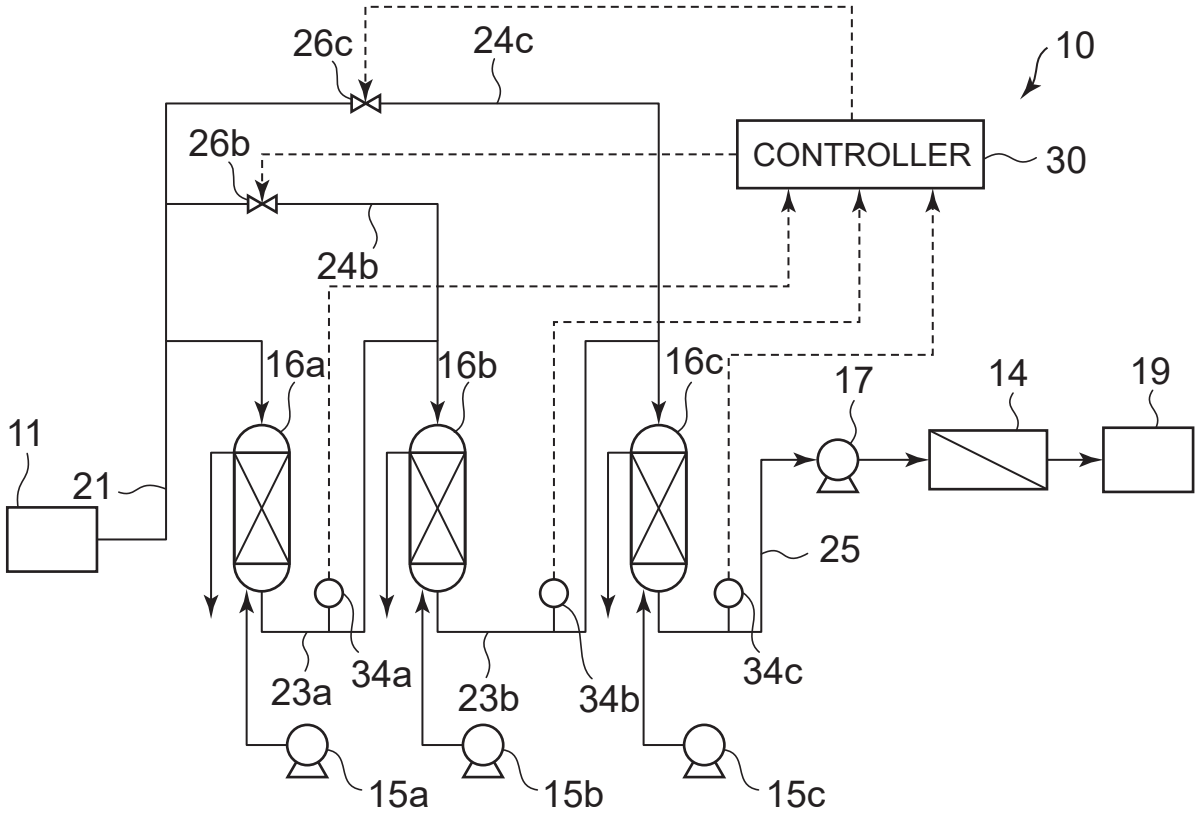
26c
24c
10
26b
CONTROLLER
30
24b
16a
16b
16c
17
14
19
11
21
25
23a
34a
23b
34b
34c
15a
15b
15c

FIG. 10

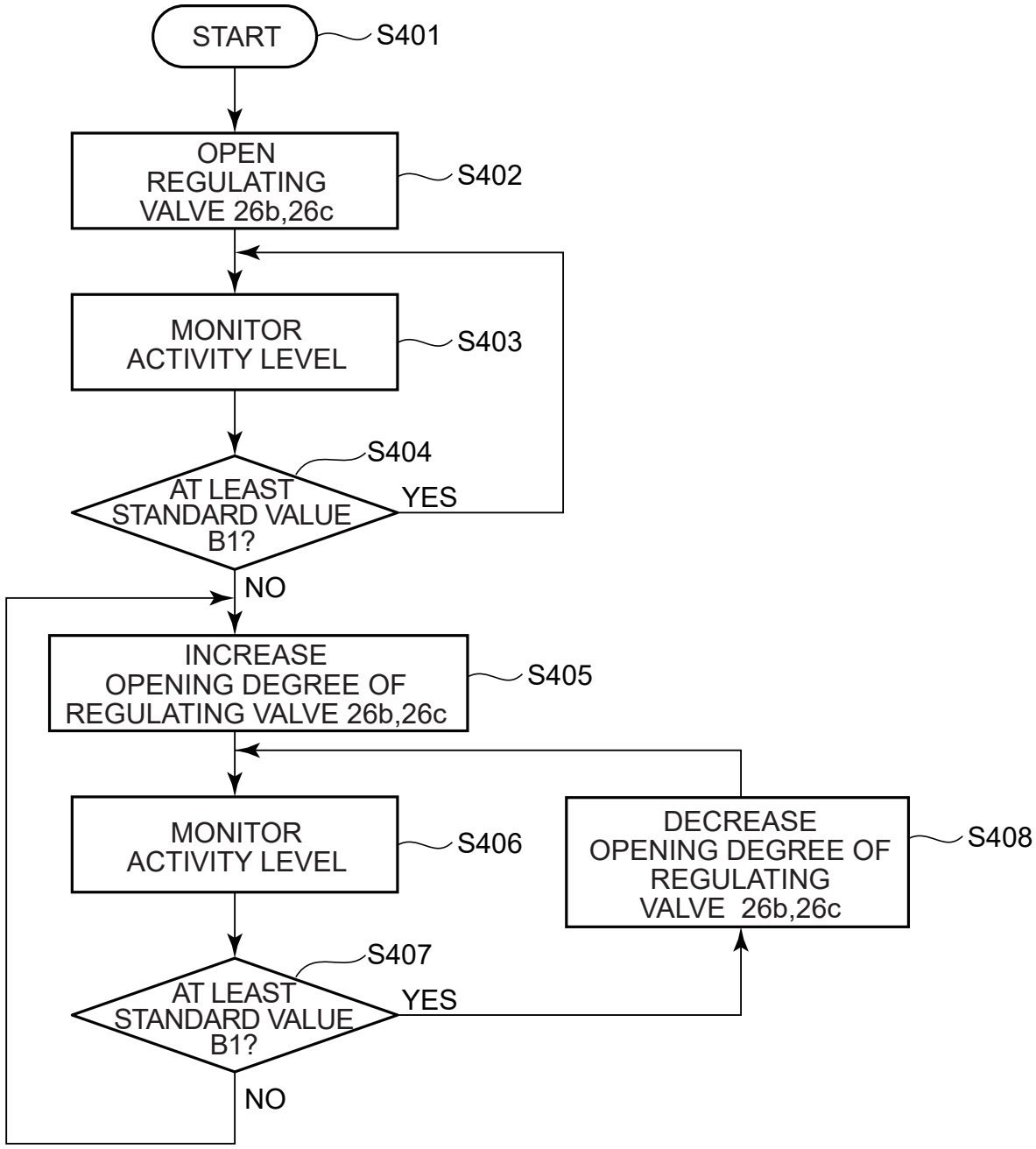
START
S401
OPEN REGULATING VALVE 26b,26c
S402
MONITOR ACTIVITY LEVEL
S403
S404
AT LEAST STANDARD VALUE B1?
YES
NO
INCREASE OPENING DEGREE OF REGULATING VALVE 26b,26c
S405
MONITOR ACTIVITY LEVEL
S406
S407
AT LEAST STANDARD VALUE B1?
YES
NO
DECREASE OPENING DEGREE OF REGULATING VALVE 26b,26c
S408

FIG. 11

