

**REPORT TO THE 33rd LEGISLATURE
STATE OF HAWAI'I
2025**

**PURSUANT TO SECTION 340B-12, HAWAI'I REVISED STATUTES,
REQUIRING THE DEPARTMENT OF HEALTH TO PROVIDE
AN ANNUAL REPORT OF THE ACTIVITIES OF THE
BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN
WASTEWATER TREATMENT FACILITIES
STATE FISCAL YEAR 2024**

**PREPARED BY:
STATE OF HAWAI'I
DEPARTMENT OF HEALTH
BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN
WASTEWATER TREATMENT FACILITIES
DECEMBER 2024**

BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN WASTEWATER TREATMENT PLANT FACILITIES

EXECUTIVE SUMMARY

The Board of Certification of Operating Personnel in Wastewater Treatment Plants (Board) conducted seven (7) meetings during state fiscal year (SFY) 2024. There were abundant agenda items, time constraints, and budget concerns during these meetings. The Board was able to make progress on, but did not complete tasks seen as important, which included organizing its files and records. The Board continued offering computer-based testing model (CBT) for operator certification exams. The CBT exams are an option to written paper exams that are available on O‘ahu, Maui, Kaua‘i, and Hawai‘i islands. There was no time available to discuss proposed changes to certification rules under Chapter 11-61, Hawaii Administrative Rules (HAR).

Written paper operator certification examinations were administered by Board members statewide in the months of August 2023 and February 2024 to 22 applicants, with three (3) successfully passing the examinations, for an overall written paper passing rate of 14%, which is slightly lower than last year’s rate of 17%.

CBTs have become more popular than written tests. For SFY 2024, there were 28 applicants with nine (9) passing their examinations for a CBT passing rate of 32%. The passing rate is higher than last year with sixty-three (63) applicants and eighteen (18) passing their examinations for a passing rate of 29%.

- SFY 2024: 28 tests
- SFY 2023: 63 tests
- SFY 2022: 65 tests
- SFY 2021: 95 tests
- SFY 2020: 85 tests
- SFY 2019: 94 tests
- SFY 2018: 120 tests
- SFY 2017: 146 tests

Passing rates for each grade fluctuate over the years. Average passing rates for operators taking Grade 3 and Grade 4 exams are typically lower than for operators taking Grade 1 and Grade 2 exams. This is because Grade 3 and Grade 4 exams require the operator to have more advanced knowledge of the operation and maintenance of a wide variety of wastewater treatment plant (WWTP) processes (including many that the operators may not have first-hand experience with) and contain more complex problems than the Grade 1 and 2 exams. The passing rates for CBT are much greater than those for the written paper examinations.

A total of 207 WWTP operators have permanent Grade 1 through Grade 4 operator certificates in Hawai‘i (2022-2024), which is experiencing a downward trend:

- 2022-24: 207 (last year's report in this same period indicated 304)
- 2020-22: 294
- 2018-20: 312
- 2016-18: 325
- 2014-16: 346
- 2012-14: 385
- 2010-12: 405

This trend is expected to continue, and in the next several years it is anticipated that treatment plants will face a critical shortage of operators due to expected retirements of 37% of the workforce (January 2009 ABC Conference). Nationwide projections for the next four to six years indicate that for every 10 operators retiring only four will be replaced (January 2009 ABC Conference). Incentives and additional training opportunities must be developed to retain senior operators longer, and to recruit and impart the skills needed for junior operators to pass their certification exams.

Significant Board actions during SFY 2024 include:

- Reviewing applications for examinations.
- Conducting two written wastewater operator certification examinations.
- Conducting continuous computer-based, operator certification examinations.
- Classifying WWTPs.
- Evaluating applications for issuing reciprocity certifications.
- Evaluating operator college transcripts, outside training courses, and workshops for granting continuing educational units.
- Implementing Chapter 11-61, HAR, for the mandatory certification of operating personnel in WWTPs.
- Issuing permanent and temporary operator certificates.

The State of Hawai'i Department of Health (DOH) established the Statewide Wastewater Operator Training Center (SWOTC) in September 1988. State budget cuts forced elimination of the SWOTC Coordinator position in November 2009. In July 2015, DOH transferred the complete operation and management of the operator training program to the University of Hawai'i at Mānoa, Water Resources Research Center (WRRC), which now independently runs the SWOTC and offers classes statewide funded by the counties.

Act 238, Session Laws of Hawai'i (SLH) 1999 amended Chapter 340B, Hawai'i Revised Statutes (HRS) to establish the Wastewater Treatment Certification Board Special Fund. The revenues for this fund are generated from monies collected for registration, certificate renewal, reciprocity, and temporary certificates are used specifically for defraying the costs of the operations of the Board. In SFY 2024, \$10,150.72 in revenues was collected. At the end of the fiscal year, a cash balance of \$62,674.97 existed in the fund.

SFY 2024 ANNUAL REPORT

BOARD OF CERTIFICATION OF OPERATING PERSONNEL IN WASTEWATER TREATMENT FACILITIES

INTRODUCTION

Effective operation and maintenance of wastewater treatment works are essential to prevent pollution of the waters of the state and protect public health. Also, the efficient management of wastewater treatment works is an important economic asset to the public, to county and state officials, and to operators. Furthermore, certification of wastewater treatment works operators assures the employment of personnel competent to provide proper operation and maintenance, and efficient and cost-effective management of wastewater treatment works.

This Annual Report summarizes the Board of Certification of Operating Personnel in Wastewater Treatment Plants (Board) activities and accomplishments during SFY 2024. It also provides information about the Board's organizational structure.

ORGANIZATIONAL STRUCTURE

The Board is placed, for administrative purposes, in the DOH. The nine (9) members of the Board are appointed by the Governor and confirmed by the Legislature for four-year terms. The present Board is comprised of the following members, which includes representatives from each of the major counties of the State, as required by Chapter 340B, HRS:

Robert Souza	-	Board Chair, Certified Operator, City and County of Honolulu
Roger Babcock Jr	-	Professional Engineer, Director, Department of Environmental Services, City and County of Honolulu (former Faculty, University of Hawai'i at Mānoa, College of Engineering)
Kevin Nakamura	-	Certified Operator, private practice
Emily Dong	-	Professional Engineer, private practice
Jon Nakashima	-	Certified Operator, County of Kaua'i
Gary Hutchinson	-	Hawai'i Water Environment Association (HWEA).
Maria Yamashita	-	State of Hawaii, DOH
Virgilio Viernes	-	Certified Operator, County of Maui
Vacant	-	Certified Operator, County of Hawai'i

The Board member seat representing the County of Hawai'i has been vacant since the March 2010 Board meeting.

BOARD MEETINGS DURING SFY 2024

During SFY 2024, the Board held seven (7) meetings on:

July 19, 2023	March 21, 2024
September 15, 2023	May 17, 2024
October 26, 2023	June 27, 2024
December 14, 2023	

There has been a noticeable increase in meeting agenda items as operators have become more involved on certification issues than in the past. These additional agenda items require more of the Board's time and have limited the Board's ability to discuss revisions to Chapter 11-61, HAR, which governs the operator certification program.

SUMMARY OF CERTIFICATION EXAMINATIONS

The Board conducted two (2) written paper examinations for all grades of WWTP operators during SFY 2024. The exam was held in August 2023 (Statewide) and February 2024 (Kaua'i). The results of this examination are depicted in the following table:

August 2023 and February 2024 Written Paper Examinations

Grade	Pass	Applicants	Passing %
1	1	6	17
2	1	8	13
3	1	5	20
4	0	3	0
Total	3	22	14

The Board also facilitated continuous CBTs for all grades of operators which are depicted in the following table:

Computer-Based Tests taken during SFY 2024

Grade	Pass	Applicants	Passing %
1	1	5	20
2	3	9	33
3	3	7	43
4	2	7	29
Total	9	28	32

COMPARISON OF PASSING PERCENTAGES ON WRITTEN EXAMS Statewide

Date of Exam	Grade 1	Grade 2	Grade 3	Grade 4
February 2024	0	25	100	0
August 2023	33	0	0	0
February 2023	0	20	0	33
August 2022	40	0	0	13
February 2022	40	0	0	0
August 2021	20	25	0	0
August 2020	29	33	0	0
August 2019	50	0	0	0
August 2018	33	20	0	20
February 2018	70	17	22	11
August 2017	17	43	13	0
February 2017	46	50	17	31
August 2016	31	17	75	7
February 2016	44	40	18	11
August 2015	43	36	22	0
February 2015	44	28	16	11
August 2014	47	17	18	7
February 2014	57	50	19	8
August 2013	36	39	14	5
February 2013	50	55	62	9
August 2012	60	50	17	29
February 2012	35	25	56	14
August 2011	67	67	42	50
February 2011	55	50	32	4
August 2010	27	24	20	0
February 2010	79	64	31	10
August 2009	46	24	8	5
February 2009	52	45	57	10
August 2008	50	41	10	6

Statistics:

A total of 22 written paper examinations were taken in SFY 2024 of which three (3) operators passed their exams for an overall passing rate of 14%. A total of 28 CBTs were taken in SFY 2024 of which nine (9) operators passed their exams for an overall passing rate of 32%. If the written paper and CBTs results are combined, there were fifty (50) exams and twelve (12) passes for a rate of 24% which is higher than the SFY 2023 passing rate of 22%.

As shown in the table above, the passing percentages for all grades have fluctuated over the years.

In general, Grades 1 and 2 have higher passing rates than for Grades 3 and 4. This is because Grade 3 and Grade 4 exams require the operator to have more advanced knowledge of the operation and maintenance of a wide variety of WWTP processes (including many that the operators may not have first-hand experience with) and contain more complex problems than the Grade 1 and 2 exams.

Operators are encouraged to enroll in courses offered by the Statewide Wastewater Operator Training Center and correspondence courses provided by California State University Sacramento (CSUS). Additional training courses from other sources including online web-based courses are evaluated and approved by the Board to enhance the operator's learning progress.

The Association of Boards of Certification (ABC) Certification Examination questions reference the courses offered by CSUS. Analysis has proven that the majority of the operators who have completed the CSUS courses and taken courses offered by the Training Center are passing the ABC Certification examinations.

Statewide Wastewater Operator Training Center (SWOTC)

The DOH established the training center 30 years ago in September 1988. Due to budget constraints, the State eliminated the SWOTC Coordinator position in November 2009. From September 2010 through June 2015, operator training was coordinated by the University of Hawai'i at Mānoa, WRRC with DOH maintaining control of financial matters. DOH turned over the operation and management completely to WRRC on July 1, 2015, which is now being operated by WRRC with financial support from the Counties (website: <http://www.wrrc.hawaii.edu/swotc.shtml>).

Training courses included introductory basic wastewater courses to more complex advanced courses in activated sludge, sludge conditioning, and anaerobic digestion.

Exam participants who have successfully completed WWTP operator courses with the training center have traditionally performed better on exams than those who did not participate in the training program. The SWOTC provides an important role in the certification of WWTP operators statewide.

Wastewater Branch, State Department of Health

The Construction and Operations Section of the Wastewater Branch has assisted the Board by providing information and vital data for all WWTPs requiring classification. Wastewater Branch inspection reports of WWTPs are used by the Board to classify new plants as they are constructed. This ensures that certified operators possessing skills commensurate with a WWTP's classification rating are operating the WWTP. The Board currently maintains a database of approximately 180 classified WWTPs in the state.

The Board reviews operator requests to evaluate college transcripts, certificates of completion for workshops, conferences, and short training courses for approval of allowable continuing education unit (CEU) credits. These CEUs are needed by operators to show that the applicant has met the educational requirements for operator certification examinations. Applicants must also show appropriate years of WWTP operating experience was obtained in order to qualify for various grade levels of certification.

The January 2002 amendments to Chapter 11-61, HAR, changed the renewal period for active operator certificates to every two (2) years instead of annually. This change allowed the Board to reduce paperwork and the cost associated with annual renewals, which is comparable with other ABC member states. The amendments also require operators to obtain two (2) CEU credits prior to renewing their operator certificates. In recent years, this requirement resulted in a substantial increase in the number of operator requests for Board review to determine allowable CEU credits for college transcripts, workshops, and short courses attended by operators.

Significant Board Actions

The primary goal of the certification program is to ensure that all WWTPs are operated by qualified personnel. During the SFY 2024, the Board achieved the following objectives:

1. Continued to review and determine the number of CEUs allowed for satisfactory completion of new training courses offered by other institutions;
2. Resolved operator concerns on applications, qualifications for examination, and certificate renewal requirements;
3. Continued to inform operators of the Board's functions and decisions via minutes of the Board meetings. Board minutes are accessible to operators and are available on the Board's website at: <http://health.hawaii.gov/wastewater/home/boc>

Meetings are open to any operator interested in attending or making a presentation before the Board;

4. Continued contracting with ABC Services for the development and scoring of operator certification examinations. The ABC Services examinations consist of 100 questions selected by experts and validated to create nationally standardized examinations that are used in all 50 states. Scoring 70% or higher on the exam is required to pass the exams.

The ABC written paper tests will from now on only be offered annually on all islands in August.

Since 2013-14 the Board has contracted with AMP Corp to offer CBT in Honolulu as an option available to all operators at an additional cost to the operator (\$90). CBTs are offered in three counties (Honolulu, Maui, and Hawai'i).

Operators are now allowed to take a test up to three (3) times in a calendar year using any combination of written paper and CBT;

5. Continued to provide information to operators and other agencies about Hawai'i's certification program. Provided listings of operator CEUs earned, training completed and issued new certified operator certificates;
6. Continued to review and update all forms and related instructional sheets; and
7. Implemented amendments to Title 11, Chapter 61, HAR, Mandatory Certification of Operating Personnel in Wastewater Treatment Facilities, dated January 20, 2002.

Schedule of Meetings for SFY 2025

The Board plans to schedule meetings approximately every other month with additional meetings as necessary. Meetings scheduled for SFY 2025 are as follows:

September 26, 2024	March 2025 (TBD)
October 11, 2024	May 2025 (TBD)
October 24, 2024	June 2025 (TBD)
December 5, 2024	

General business conducted at these meetings includes:

1. Providing an informational meeting for operators in attendance;
2. Reviewing and processing applications for certification examinations, selecting Certification exam questions and discussing the results of the exams;
3. Reviewing and preparing responses to correspondence received from operating personnel and other agencies;
4. Reviewing, and approving or denying operator applications for Temporary Certificates;
5. Reviewing and issuing Reciprocity Certificates to qualifying operators moving to Hawai'i from other states; and
6. Reviewing, and approving or denying operator certificate renewals.

REVENUES AND EXPENSES

Expenses During the Fiscal Year (July 2023 to June 2024):

Object Code	Title	Cost
3020	ABC Examinations	1,168.00
3210	Office Supplies	15.86
3510	Membership Dues	900.00
3710	Postage	35.50
3810	Telephone & Telegraph	545.12
4290	Intra-State Transportation-Others	3,601.27
4390	Subsistence Allowance, Intra-State- Others	4,552.62
4395	Excess Lodging, Intra-State-Others	4,734.68
4690	Hire of Passenger Carts-Others	1,194.00
5620	Rental of Office Equipment	214.87
7210	Trng. Costs & Registration Fees	1,156.82
7290	Other Misc. Current Expenditures	648.98
	Total	\$18,767.72

Funding for the Board

Act 238, SLH 1999 amended chapter 340B HRS which established the Wastewater Treatment Certification Board Special Fund. The revenues for this fund are generated from moneys collected for registrations, renewals, reciprocity and new certificates and are to be used specifically for financing the operations of the Board. During SFY 2024, revenues from application fees were \$10,150.72 as compared to last fiscal year's revenues of \$18,591.61. Revenues vary each year and are typically more during operator certificate renewal years.

Fiscal Situation

The Board's annual budget of \$28,021 was in effect for fiscal year SFY 2024. Total expenses were \$18,767.72. The Board will continue to use appropriate procedures to manage its budget.

For SFY 2024, the Board had an annual budget of \$28,021. Any current or future budget restrictions will hamper Board efforts to schedule additional meetings for rule amendments

and to administer Chapter 11-61, HAR, entitled “Mandatory Certification of Wastewater Treatment Personnel in Wastewater Treatment Plants.” Further budget reductions will severely restrict the Board’s ability to administer the operator certification program.

At the close of the SFY 2024, there was a cash balance of \$62,674.97 in the special fund account.

Recommendation

The Board is in need of administrative support personnel to administer Chapter 11-61, HAR. Currently, the Board is a “working board” that must screen and review each of the hundreds of applications for certificate renewals, exams, requests for reciprocity, and CEUs, which consume much of the Board’s time and effort at meetings. Second day meetings are needed to address the deferment of agenda items and developing important and much needed amendments to Chapter 11-61, HAR. Ideally, as done in other states, a certification program coordinator with dedicated support staff should be established to administer the program.