APLAC T075

Paralytic Shellfish Poison Proficiency Testing Program

FINAL REPORT

Oct 2012

ACKNOWLEDGMENTS

China National Accreditation Service for Conformity Assessment (CNAS) wishes to acknowledge the funding supports by **Asia Pacific Laboratory Accreditation Cooperation** (APLAC) and also thanks to APLAC, EA, IAAC members and the laboratories nominated for their cooperation and participation. .

CNAS is grateful to experts, Mr Cao Zhijun, Ms Cao Jijuan and Ms Wang Qiuyan, from **Liaoning** Entry-Exit Inspection & Quarantine Bureaus of People's Republic of China for their favorable regards, persevering support and excellent works in this program.

Contents

Summary of results

1. This report summarizes the results for the APLAC T075 proficiency testing program on the determination of Paralytic Shellfish Poison contents in lyophilized scallop samples. This program applies only to the use of inter-laboratory comparisons of the purpose of proficiency test using mouse bioassay. The aim of this program is to assess the performance of individual laboratories for specific tests. It does not include determining the effectiveness and precision of testing methods.
2. The participating laboratories were requested to analyze total PSP toxins in the lyophilized mussel samples. For this program, mouse bioassay, e.g. AOAC official method 959.08, should be used.
3. A total of 21 laboratories from 12 different economies participated in the proficiency testing program. 17 laboratories submitted their results before the deadline, thus were included in this report. (APPENDIX A)
4. Assigned value and standard deviation are determined by robust analysis according to *Algorithm A* in ISO 13528:2005. However, in order to give meaningful statistics, the number of participant should exceed a certain number (say 17). Unfortunately, for this scheme, there were only 11 valid results for sample C and 13 valid results for sample D after the technical knock-out, the number of results in this scheme was too small to evaluate these summary statistics reasonably. As a result, the laboratory performance for PSP was not assessed in this scheme. As the logarithm of testing results are of normal distribution, the results from participating laboratories should be transformed to their logarithm, and then the assigned values and standard deviations for assessment should be derived from these logarithmic results. The robust mean, robust standard deviation and standard uncertainty for individual sample and z-score* for each result were listed in this report only as overall information. They are summarized as follows:

Table 1 Summary Statistics

Sample	Robust Mean of Logarithm log(MU/ml)	Robust Standard Deviation of Logarithm log(MU/ml)	Standard Uncertainty of Logarithm log(MU/ml)	Robust Mean, MU/ml	The 95% confidence interval, MU/ml
C	0.113	0.115	0.043	1.297	0.764 ~ 2.203
D	0.407	0.194	0.067	2.553	1.045 ~ 6.237

***Z-scores are provided for information ONLY. Any follow-up action shall be very cautious.**

1. Introduction

1.1 This report summarizes the results of APLAC Paralytic Shellfish Poison Proficiency Testing Program T075. The program was organized by the China National Accreditation Service for Conformity Assessment (CNAS) in collaboration with Liaoning Entry-Exit Inspection & Quarantine Bureau of People's Republic of China (LNCIQ), under the auspices of Asia-Pacific Laboratory Accreditation Cooperation (APLAC). LNCIQ is an accredited PT provider by CNAS against ISO/IEC 17043.

1.2 The members of APLAC, EA and IAAC were invited to nominate laboratories to participate in this program. A total of 21 laboratories from 12 economies were nominated. Four laboratories did not report any results till the deadline, while 17 laboratories reported the testing results of Paralytic shellfish poison contents in the two samples, in which 15 laboratories were accredited for testing Paralytic shellfish poison contents by their accreditation bodies.

1.3 Each participant was confidentially assigned with a unique laboratory code which is used throughout the program.

2. Objectives

2.1 The main objective of the program was to evaluate the performance of participating laboratories in the analysis for the content of paralytic shellfish poison by means of inter-laboratory comparison. This program applies only to the use of inter-laboratory comparisons of the purpose of proficiency testing. The aim of this program is to assess the performance of individual laboratories for specific tests. It does not include determining the effectiveness and precision of testing methods.

2.2 Test results from participants were treated referred to the statistical techniques outlined in ISO 13528:2005 "Statistical methods for use in proficiency testing by inter laboratory comparisons". This program was conducted in accordance with the simultaneous scheme specified in ISO/IEC 17043:2010.

3. Proficiency Testing Item (PTI)

3.1 Sample preparation

Two different concentrations were designed for this scheme, named Sample C and D respectively. All raw materials of scallops, uncontaminated and naturally contaminated with PSP toxins were

collected from the Bohai Sea of China. The scallop samples were shucked, drained, homogenized and lyophilized. Each kind of item was prepared by adding designed amounts of contaminated lyophilized powder to uncontaminated lyophilized powder. Then, the samples were mixed well to make it homogeneous and packed into sealed plastic bottles. The testing samples were randomly labeled and recorded. Testing samples packed with the Instructions for Participants (see Appendix C) were distributed directly to accreditation bodies as requested.

3.2 Homogeneity and Stability

The samples randomly selected from each item were determined for their homogeneity and stability. The methods in ISO/IEC 13528 were applied to study the homogeneity and stability of the proficiency testing items (PTIs). The mouse bioassay was used for all homogeneity and stability tests.The data reflected the items meet the aim of this scheme. Details of sample homogeneity and stability check are described in APPENDIX B.

3.4 Laboratories were requested to perform the test according to the "INSTRUCTION" and to record their results on the "RESULTS SHEET", both of which were distributed to participants with the samples in Sep 2011. (APPENDIX C to D)

3.5 All ABs were requested to read the "Instructions for Accreditation Bodies" and to redirect the sample(s) and the attached documents to their nominated laboratories as soon as possible. (APPENDIX C)

4. Test Required

4.1 In this scheme, participating laboratories were requested to analyze total PSP toxins in the lyophilized mussel samples. For each test, mouse bioassay, e.g. AOAC official method 959.08, should be used.

4.2 Participants were asked to report results according to the Instructions.

5. Statistical Principle

5.1 Participants' test results

Test results received from participants are presented in APPENDIX A.

5.2 As the logarithm of testing results are of normal distribution, the results from participating laboratories were transformed to their logarithm, and then the assigned values and standard deviations for assessment should be derived from these logarithmic results.

5.3 Performance evaluation

5.3.1 According to Algorithm A in Annex C of ISO 13528:2005, the data are sorted into ascending order, by:

$x_1, x_2, \ldots, x_i, \ldots x_p$

Denote the robust average and robust standard deviation of these data by x* and s*.

Calculate the initial values for x* and s* as:

x*= median of x_i (i=1, 2, …p)

s*= 1.483 median of $|x_i - x^*|$ (i=1, 2, …p)

Update the values of x* and s* as follows. Calculate:

$\delta = 1.5\ s^*$

For each x_i (i=1, 2, …p), calculate:

$$x_i^* = \begin{cases} x^* - \delta, & \text{if } x_i < x^* - \delta \\ x^* + \delta, & \text{if } x_i > x^* + \delta \\ x_i, & otherwise \end{cases}$$

Calculate the new values of x* and s* from:

$$x_i^* = \sum x_i^* \Big/ p$$

$$s^* = 1.134 \sqrt{\sum (x_i^* - x^*)^2 / (p-1)}$$

where the summation is over i.

The robust estimates x* and s* are derived by an iterative calculation, i.e. by updating the values of x* and s* several times using the modified data, until the process converges. Convergence is assumed when there is no change from one iteration to the next in the significant figure of the robust standard deviation and the robust average specified in the Instructions for laboratories.

.

5.3.2 Performance of each participant was evaluated by means of a performance index, z-score, which is calculated as:

$$z = \frac{x - x^*}{s^*}$$

5.3.3 The z-score is normally interpreted as follows:

$|z| \leq 2.0$ Satisfactory

$2.0 < |z| < 3.0$ Warning signal, Questionable

$|z| \geq 3.0$ Action signal, Unsatisfactory

6. Results

6.1 A total of 21 laboratories participate in this program, among which 17 submitted results. Please refer to APPENDIX A for participant results.

6.2 In order to ensure the statistics making sense, some results were knocked out in regarding to technical reasons. Table 2 gives out a summary. Detailed reasons can be referred to the analysis from 7.1-7.3.

Table 2 Technical Knock-out Summary

Sample C		Sample D	
Lab Code	Reason	Lab Code	Reason
001	Gross error	001	Gross error
002	Testing method	002	Testing method
003	No values and not report duplicated test results	003	Not report duplicated test results
007	No values, not statistics	015	only using one mouse
014	Not report duplicated test results		
015	only using one mouse		

6.3 Only when the number of participants exceeded a specific number, could the statistics be reasonable. If number of results is too small, the assessment on the performance of participating laboratories does not make much sense. Unfortunately, after the knock-out, there were only 11 valid results for sample C and 13 valid results for sample D. The number of results in this scheme was too small to evaluate these summary statistics reasonably. As a result, the laboratory performance for quantifying PSP could not be assessed in this scheme.

6.4 If a laboratory has achieved a result close to the mean, or within the group of similar results for both samples, that can serve an evidence of competence with this method and measurand.

6.5 The robust mean, robust standard deviation and standard uncertainty for individual sample were listed in this report only as overall information. They are summarized as follows:

Sample	Robust Mean of Logarithm log(MU/ml)	Robust Standard Deviation of Logarithm log(MU/ml)	Standard Uncertainty of Logarithm log(MU/ml)	Robust Mean, MU/ml	The 95% confidence interval, MU/ml
C	0.113	0.115	0.043	1.297	0.764 ~ 2.203
D	0.407	0.194	0.067	2.553	1.045 ~ 6.237

7. Technical Commentary

In order to facilitate the participants to improve their testing performance, main factors that influence the analytical results of PSP toxins are described as following

7.1 Analytical method

Paralytic shellfish poisons (PSP) were found as a group of at least 21 structurally related neurotoxins, produced mainly by dinoflagellates belonging to the genus Alexandrium. There are various methods for quantifying paralytic shellfish poisons in shellfish samples, which could be classified as mouse bioassay, ELISA and chromatography methods. Only by mouse bioassay could total PSP toxins be obtained, neither ELISA nor chromatography methods covered all neurotoxins, hence, testing results from these three methods are usually different.

One participating laboratory attempted STX and GTX4 content quantization in the test samples using a HPLC method and got a different toxicity. Some PSP toxins in the test samples, including C1, C2, GTX2, GTX3, GTX4, GTX5, dcGTX2, STX, Neo toxin, were not shown in the testing records from this laboratory. Therefore, it was not possible to accurately calculate the total toxicity from STX and GTX4.

7.2 Number of mice

In some economies, the use of mice for laboratory testing is controlled or restricted. Hence, one participant (lab code:T075-015) submitted each result for the sample only using one mouse，some participants (lab code:T075-001、T075-003、T075-014) submitted one set of results for each sample which have not been diluted and had duplicated testing

according to the feedback form, different from the requirement of AOAC method. The risk of reporting outlier is higher.

7.3 Operational experience

In performing the mouse bioassay, the operational experience of technicians is important. Some participants may have made mistakes in calculations by misunderstanding the definition of median lethal time for the mice or by selecting mice of less than the ideal weight.

Technical Commentary in this program, also, the exact reasons of some unsatisfactory results could not be provided, because the information the participants provided was very limited.

8. Remarks

Efforts and supports from all ABs and participants to this program are gratefully noted. Participants are welcome to forward any comments on this PT to the following information:

Coordinator

Ms. Wang Qiuyan

Adress: No. 60, Changjiang East Road, zhongshan District, Dalian, 116001, P.R.China.

Tel: +86-411-82583929

Email: *lndlwqy@163.com*

9. References

[1] ISO/IEC 17043: 2010, “Conformity assessment -- General requirements for proficiency testing”.

[2] ISO 13528:2005, “Statistical methods for use in proficiency testing by interlaboratory comparisons”.

[3] ISO-Guide to the Expression of Uncertainty in Measurement.

APPENDIX A

Summary of Testing Results

The numbers of laboratories with respect to their accreditation bodies are listed in Table A.1.

The testing results on PSP toxins obtained from the participants with corresponding testing methods are listed in Table A.2.

Table A.1 Summary of Participants

Economy	Accreditation Body	Number of Labs	No. of Results returned
Belgium	BELAC	1	1
Canada	Standards Council of Canada	1	1
China	China National Accreditation Service for Conformity Assessment (CNAS)	4	4
Croatia	Croatian Accreditation Agency	1	1
Croatia	*(information on AB was not provided in the nomination form)*	1	1
France	Cofrac	1	1
Indonesia	National Accreditation Body of Indonesia (KAN)	1	1
Italy	ACCREDIA	2	2
Japan	The Japan Accreditation Board for Conformity Assessment (JAB)	4	2
Latvia	SAMC Ltd., Latvian National Accreditation Bureau	1	0
Singapore	Singapore Accreditation Council	1	1
Slovenia	Slovenian Accreditation	1	1
United Kingdom	United Kingdom Accreditation Service (UKAS)	2	1
	Total	**21**	**17**

Table A 2 Reported Results of PSP toxins

Lab Code	Sample C				SampleD				Testing Method
	Sample No.	Result MU/ml	Logarithm value	Z-score*	Sample No.	Result/ MU/ml	Logarithm value	Z-score*	
T075-001	S139	419.350	2.623	21.791	S093	551.9	2.742	12.017	Mouse bioassay
T075-002	S116	37.000	1.568	12.632	S018	87	1.940	7.889	HPLC
T075-003	S050	negative		Not calculated	S084	1.035	0.015	-2.020	Mouse bioassay
T075-004	S085	1.051	0.022	-0.788	S096	1.227	0.089	-1.639	Mouse bioassay
T075-005	S007	0.875	-0.058	-1.483	S056	2.535	0.404	-0.018	Mouse bioassay
T075-006	S025	1.047	0.02	-0.806	S020	3.481	0.542	0.693	Mouse bioassay
T075-007	S137	<0.875		Not calculated	S060	1.35	0.130	-1.428	Mouse bioassay
T075-008	S107	0.9875	-0.005	-1.023	S021	1.458	0.164	-1.253	Mouse bioassay
T075-009	S069	1.581	0.199	0.748	S140	4.312	0.635	1.171	Mouse bioassay
T075-012	S111	1.510	0.179	0.575	S104	3.59	0.555	0.759	Mouse bioassay
T075-014	S101	1.090	0.037	-0.658	S089	1.6	0.204	-1.047	Mouse bioassay
T075-015	S072	1.180	0.072	-0.345	S123	1.31	0.117	-1.495	Mouse bioassay
T075-017	S095	1.080	0.033	-0.693	S080	2.13	0.328	-0.409	Mouse bioassay
T075-018	S045	1.920	0.283	1.427	S091	3.21	0.507	0.512	Mouse bioassay
T075-019	S092	1.340	0.127	0.123	S002	3.348	0.525	0.605	Mouse bioassay
T075-020	S141	1.440	0.158	0.392	S071	3.17	0.501	0.482	Mouse bioassay
T075-021	S005	1.660	0.22	0.930	S009	3.63	0.560	0.785	Mouse bioassay

***Z-scores are provided for information ONLY. Any follow-up action shall be very cautious.**

APPENDIX B

Homogeneity and Stability Checks

B.1 Homogeneity Testing

For each kind of item, 12 samples were randomly selected and tested. Each sample repeated measured two times, all test portions were tested in random order on the repeatability condition, that is to say, the testing was carried out during a short period by one person using the same testing method and apparatus in one laboratory. The results on each sample are listed in Table B1 and B.2.

The between-samples standard deviations (ss) were calculated using the following formulae, where g is the number of samples used:

The sample average is $\bar{x}_t = (x_{t1} + x_{t2})/2$

The between-test-portion range is $w_t = | x_{t1} - x_{t2} |$

General average is $\bar{\bar{x}} = \sum \bar{x}_t / g$

The standard deviation of general average is $s_x = \sqrt{\sum (\bar{x}_t - \bar{\bar{x}})^2 / (g-1)}$

The within-sample standard deviation is $s_w = \sqrt{\sum w_t^2 / 2g}$

The between-samples standard deviation is $s_s = \sqrt{s_x^2 - s_w^2 / 2}$

Table B.1 Homogeneity Testing Results of Sample C

Sample No	result1 （MU/ml）		Logarithm value		Average of logarithm value
1	1.46	1.60	0.164	0.204	0.184
2	1.58	1.46	0.199	0.164	0.182
3	1.59	1.46	0.201	0.164	0.183
4	1.64	1.55	0.215	0.190	0.203
5	1.80	1.71	0.255	0.233	0.244
6	1.35	1.56	0.130	0.193	0.162
7	1.62	1.54	0.210	0.188	0.199
8	1.55	1.31	0.190	0.117	0.154
9	1.60	1.50	0.204	0.176	0.190
10	1.48	1.44	0.170	0.158	0.164
11	1.50	1.52	0.176	0.182	0.179
12	1.41	1.49	0.149	0.173	0.161
$\bar{\bar{x}}$ =0.184, f_1= 11, f_2 = 12, MS_1 = 0.00120, MS_2 = 0.00639					
s_x =0.0244,s_w =0.0262,s_s=0.0159,Robust SD=0.077 ,Robust Mean=0.177					

Table B.2 Homogeneity Testing Results of Sample D

Sample No	result1 （MU/ml）		Logarithm value		Average of logarithm value
1	3.43	3.71	0.535	0.569	0.5524
2	3.00	3.53	0.477	0.548	0.5125
3	3.25	3.39	0.512	0.530	0.5211
4	3.72	3.86	0.571	0.587	0.5786
5	3.38	3.55	0.529	0.550	0.5396
6	3.34	3.18	0.524	0.502	0.5131
7	3.78	3.98	0.578	0.600	0.5887
8	3.48	3.20	0.542	0.505	0.5234
9	4.00	3.91	0.602	0.592	0.5972
10	3.58	3.84	0.554	0.584	0.5691
11	3.28	3.49	0.516	0.543	0.5294
12	3.03	3.65	0.481	0.562	0.5219
$\bar{\bar{x}}$ =0.5455, f_1= 11, f_2 = 12, MS_1 = 0.001883, MS_2 = 0.000744,					
s_x =0.0306,s_w =0.0272,s_s=0.0238,Robust SD=0.121 ,Robust Mean=0.486					

B.2 Stability Testing

For Sample C and D, 12 packaged testing samples were selected for stability testing, respectively. The samples were placed at room temperature (18~25 degrees C) for 5 days, then put into an attemperator with a temperature of 40 degrees C for 10 days and placed at about -20℃ until stability testing finished, on the date 30, 60 and 100 beginning from the day of homogeneity testing, every 3 samples per date were tested on toxins.

For all stability testing, the person, apparatus, testing method and laboratory were same as the homogeneity testing. The testing results of stability check are listed in Table B.3 and B.4, every absolute differences from the general average of homogeneity tests were calculated using following formulae:

The sample average is $\bar{y}_t = (y_{t1} + y_{t2})/2$

General average is $\bar{\bar{y}} = \sum \bar{y}_t / g$

The difference between stability and homogeneity testing results is $|d| = |\bar{\bar{y}} - \bar{\bar{x}}|$

Table B.3 Stability Testing Results of sample C

Day	result1 （MU/ml）		Logarithm value		Average of logarithm value		
			y_{t1}	y_{t2}	$\bar{y}_t$	$\bar{\bar{y}}$	|d|
30	1.55	1.52	0.190	0.182	0.186	0.184	0.014
	1.43	1.56	0.155	0.193	0.174		
	1.62	1.50	0.210	0.176	0.193		
60	1.71	1.69	0.233	0.228	0.231	0.198	
	1.44	1.49	0.158	0.173	0.166		
	1.59	1.56	0.201	0.193	0.197		
100	1.64	1.66	0.215	0.220	0.218	0.187	
	1.52	1.46	0.182	0.164	0.173		
	1.50	1.46	0.176	0.164	0.170		
$\bar{\bar{x}}$ =0.184, Robust SD =0.077, max|d| =0.014							

Table B.4 Stability Testing Results of sample D

Day	result1 （MU/ml）		Logarithm value		Average of logarithm value		
			y_{t1}	y_{t2}	$\bar{y}_t$	$\bar{\bar{y}}$	|d|
30	3.72	3.61	0.571	0.588	0.565	0.553	0.009
	3.43	3.48	0.535	0.542	0.537		
	3.58	3.66	0.554	0.563	0.559		
60	3.48	3.53	0.542	0.548	0.545	0.549	
	3.65	3.78	0.562	0.577	0.570		
	3.38	3.43	0.529	0.535	0.532		
100	3.28	3.38	0.535	0.529	0.523	0.537	
	3.49	3.43	0.543	0.535	0.539		
	3.58	3.48	0.554	0.542	0.548		
$\bar{\bar{x}}$ =0.5455, Robust SD =0.121, max|d| =0.009							

APPENDIX C

Related Documents

Instructions for Accreditation Bodies

1. Samples:

The Accreditaion bodies (ABs) should receive two PT test items for each participating laboratory and instruction information (soft copy) from the PT coordinator. Upon receipt, ABs should carefully check the sample (number of bottles, physical conditions, etc.), and shall promptly acknowledge the LNCIQ by returning the "Receipt Form (for Accreditation Bodies)" electronically to *lndlwqy@163.com* . New sample(s) will be replaced for any missing and damaged bottles.

ABs are recommended to promptly distribute the test items to their nominated laboratories. The test items shall be stored at <0°C before dispatch.

ABs shall remind their nominated laboratories to carefully check the sample upon receipt and promptly acknowledge the LNCIQ by returning the "Receipt Form (for Participating Laboratories)" electronically to *lndlwqy@163.com* **.**

2. Results:

ABs shall inform their respective participating laboratories of completing Result Sheet and Testing Record Form and submitting them electronically to the organizer on or before Oct 15 2011 to *lndlwqy@163.com* . (Notes: 1. Results submitted after the deadline will not be accepted by the organizers. 2. Due to possible poor transmission quality, results returned by fax are generally not acceptable).

3. Enquiries:

Please contact the coordinator for further enquiries at *lndlwqy@163.com* **.**

Instructions for Participants

Dear Participant:

Your laboratory has been nominated by the laboratory accreditation body in your economy to participate in the Asia Pacific Laboratory Accreditation Cooperation (APLAC) Paralytic Shellfish Poison proficiency testing program T075. In this program, each laboratory has a unique code number shown on the Result Sheet. Considering the rules of protection of participants' confidentiality, the unique code number will represent your laboratory in the reports associated with this program.

To ensure that results from this program can be analyzed properly, you are asked to follow carefully the instructions below.

1. Samples

♫ Two lyophilized mussel samples will be sent to you in sealed bottles with labels which are the same as the labels shown on the Result Sheet.

♫ Samples were sent by your accreditation body. You are requested to store them at <0℃ immediately upon arrival. Once the sample bottles are opened, the tests must be performed immediately.

♫ You need to complete RECEIPT FORM (For Participating Laboratories) **in English**, then **email** this completed form electronically to the coordinator **on the same day** as you receive the samples. New samples will be replaced for any damaged claims.

♫ These samples are for laboratory use only, we will take no obligation or charge arising from other purposes.

2. Analysis

♫ The two samples are for analyzing PSP toxins.

♫ You should analyze total PSP toxins in dehydrated lyophilized mussel samples with mouse bioassay (e.g. AOAC official method 959.08).

♫ Please use the relevant instructions for individual samples supplied. TREAT THE CONTENTS OF EACH CONTAINER AS A WHOLE – DO NOT DIVIDE THE SAMPLE.

♫ Treat the contents of each vial as a whole. Transfer the freeze-dried powder into a beaker with 100 mL, 0.1 mol/L hydrochloric acid, wash the vial several times and

incorporated together as suspension solution. Mix thoroughly, and adjust pH to 2.0-4.0. Heat the mixture, boil gently for 5 minutes, and let it cool to room temperature. Adjust cooled mixture to pH 2.0-4.0 (never >4.5). Transfer the mixture to a measuring glass graduate and dilute it to 100 mL. Centrifuge the mixture for 5 minutes at 3000 rpm. Take the supernatant as the test solution, the PSP content (MU/mL) in this solution should be reported as the final result.

♫ Weigh and record the weight of three mice for each sample to be analysed. Intraperitoneally inoculate each test mouse with 1 mL test solution. If death time or median death time of several mice is shorter than 5 minutes, dilute the test solution to have the death times fallen in 5-7 minutes, then the dilution factor has to be used in the equation below.

♫ Calculation of Toxicity：

The laboratories may calculate results with MU/mL. Determine corresponding number of mouse units from Sommer's table, calculate the CMU (corrected mouse unit) by multiplying mouse units corresponding to death time for that mouse by weight correction factor for that mouse from Sommer's table(table AOAC 959.08B); then determie median corrected mouse unit for each group.

MU/mL= Median CMU/mL × dilution factor

3. Report

♫ For each sample, please report duplicated test results and their mean result of PSP respectively on the RESULT SHEET.

♫ Please record relevant information in TESTING RECORD FORMS in details, all you report will be benefit for analyzing testing results.

♫ Please fill out all relevant information, then email the RESULT SHEET to the coordinator of this program and your accreditation body **NO LATER THAN THE DEADLINE 15 Oct.. 2011.** And the TESTING RECORD FORMS and any supporting documents should be submitted to your accreditation body before the deadline.. At the same time, email or mail all the documents to**:**

Coordinator

Ms. Wang Qiuyan

Adress: No. 60, Changjiang East Road, zhongshan District, Dalian, 116001, P.R.China.

Tel: +86-411-82583929 Fax: +86-411-82583926

Email: *lndlwqy@163.com*

RECEIPT FORM

(For Accreditation Bodies)

We are pleased to announce that in accordance with the distribution schedule of APLAC Paralytic Shellfish Poison proficiency testing program T075. We have dispatched the samples on Sep.20, 2011 through TNT Express or FebEx

In order to monitor status of the samples, we kindly ask for checking them,then fill out this RECEIPT FORM and return a copy by **email URGENTLY to** the contact person listed below. New samples will be replaced for any damaged claims.

Ms. Wang Qiuyan
E-mail: *lndlwqy@163.com***.**

Thank you in advance for your cooperation. Your Nominated Laboratories, their Lab codes and the sample codes in this program:

Lab Name	Lab Code

DATE SAMPLE RECEIVED:

Please inspect the packaging. Was there any visible damage? Yes No

If yes, or any other problem is available, describe the problem below:

Signature: **Date:**

RECEIPT FORM

(For Participating Laboratories)

We are pleased to announce that in accordance with the distribution schedule of APLAC Paralytic Shellfish Poison proficiency testing program T075. The samples were dispatched by your accreditation body.

In order to monitor status of the samples, we kindly ask each participating laboratory on receipt of the samples to fill out this RECEIPT FORM and return a copy by **email URGENTLY to** your accreditation body and the contact person listed below. New samples will be replaced for any damaged claims.

Ms. Wang Qiuyan

E-mail: ***lndlwqy@163.com***

Thank you in advance for your cooperation.

NAME OF LABORATORY:

LAB CODE: T075-

DATE SAMPLE RECEIVED:_____ SAMPLE AMOUNT:_____

The samples are labelled as follows: ,

Inspect the packaging. Was there any visible damage? ☐ **Yes** ☐ **No**

If yes, or any other problem is available, describe the problem below.

Signature: **Date:**

Results Sheet

Lab Code: T075-

SAMPLE RECEIVED DATE: _____ **REPORT DATE:** _____

SAMPLE PROCESSED DATE: From_____**to**_____

Results of PSP toxins

Sample	Duplicated Testing Results(MU/mL)		Mean Result (MU/mL)
	1	2	

Signature： **Date:**

Return this Results Sheet (including the Testing Record Form) by **no later than the deadline Oct. 15, 2011 (we will confirm it by local postmark) by fax or email, and then mail to:**

Ms. Wang Qiuyan
Adress: No. 60, Changjiang East Road, zhongshan District, Dalian, 116001, P.R.China.
Tel: +86-411-82583929
Fax: +86-411-82583926
Email: lndlwqy@163.com

Testing Record Forms

Lab Code:T075-

Reference:		☐ standard/ ☐ journal/ ☐ book	year	No./Vol /Edition	pages
mice	Strain:	☐ male ; ☐ female			

Sample code

dilution factor	Mouse weight (g)	Correction for weight	Death time	Mouse unit	Corrected mouse unit	median corrected mouse unit	result （MU/ml）

Sample code

dilution factor	Mouse weight (g)	Correction for weight	Death time	Mouse unit	Corrected mouse unit	median corrected mouse unit	result （MU/ml）

Signature： **Date:**

The End