



DEC 29 2021

MEMORANDUM CIRCULAR No. SC-2021-30

TO: ALL SEAFARERS, MARITIME INDUSTRY STAKEHOLDERS, MARITIME TRAINING INSTITUTIONS AND OTHER ENTITIES AND INDIVIDUALS CONCERNED

SUBJECT: REVISED GUIDELINES ON TRAINING AND ASSESSMENT OF SEAFARERS BY DISTANCE LEARNING AND E-LEARNING IN ACCORDANCE WITH THE PROVISIONS OF REGULATION 1/6 OF THE STCW CONVENTION, 1978, AS AMENDED

Presidential Decree No. 474, Republic Act (RA) No.10635 and its Implementing Rules and Regulations (IRR), and its subsequent amendments thereof, and consistent with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended, Republic Act No. 11032 otherwise known as the "Ease of Doing Business and Efficient Government Service Delivery Act of 2018" and Republic Act No. 10173 also known as the "Data Privacy Act of 2012", the following rules and regulations are hereby promulgated and adopted:

**Article I
OBJECTIVE**

Section 1. To prescribe the guidelines on the training and assessment of seafarers by distance learning and e-learning in compliance with the requirements of Regulation 1/6 of the STCW Convention, 1978, as amended.

**Article II
COVERAGE**

Section 2. These guidelines shall cover the development, approval and conduct of training and assessment of seafarers through distance learning and e-learning applicable to Maritime Training Institutions (MTIs).

**Article III
DEFINITION OF TERMS**

Section 3. For the purpose of this Circular and in addition to the terms defined under the relevant MARINA and STCW Circulars, the following terms are defined:

- a. **Asynchronous delivery** (offline learning) refers to the conduct of classes through distance and e-learning that do not occur in the same place or at the same time.
- b. **Blended Learning (BL)** refers to the combination of distance and/or e-learning and face-to-face modes of delivery of training of seafarers.
- c. **Cloud-based simulation** – a facility for training through a remote desktop solution which enables physical and operational realism through virtual reality in order to achieve the required competences in the appropriate provisions of the STCW Code.
- d. **Distance learning (DL)** and **e-Learning (EL)** refer to the conduct of training where trainees receive instruction through online classes, video recordings, video conferencing, or any other audio/visual technology medium. It enables trainees to undergo training without having to be physically present in a classroom.
- e. **Face-to-face learning** refers to an instructor-led activity in a traditional setting for the conduct of theoretical, practical or laboratory part of the maritime training courses using laboratory facilities and equipment including simulator.
- f. **Learning Management System (LMS)** refers to the software application used by the MTI in the administration, documentation, tracking, reporting, automation of delivery and assessment of the training courses through distance and e-learning mode and the issuance of certificate. It also pertains to the use of a system to provide a number of critical services that make the interaction between the instructor, assessor and trainees more seamless.
- g. **Receiving technology** refers to the hardware and software associated with and used by the trainee.
- h. **Synchronous delivery** (online learning) refers to the conduct of classes through distance and e-learning which occurs through a virtual platform while the instructors and trainees are separated physically but connected real-time through the internet or other medium.

Article IV GENERAL PROVISIONS

Section 4. Based on paragraph 7, Section B-1/6 of the STCW Code, the conduct of training by distance learning and e-learning programme shall:

- 1.1 be provided by an MTI whose courses are duly approved and accredited by MARINA;

- 1.2 be suitable for the selected objectives and training tasks to meet the level of competence for the subject covered;
- 1.3 have clear and unambiguous instructions for the trainees to understand the operations of the programme;
- 1.4 provide learning outcomes that meet all the requirements to underpin knowledge and proficiency of the subject;
- 1.5 enable the trainee to systematically reflect his learnings through self-assessment and instructor-marked assignments; and
- 1.6 provide professional tutorial support through telephone, facsimile or e-mail communications or other electronic means.

Section 5. Based on paragraph 11, Section B-I/6 of the STCW Code, the MTI conducting examination and assessment of the trainee's progress and achievements by distance learning and e-learning shall:

- 5.1 clearly provide information to the trainees on the way the examinations are conducted and how the results are communicated;
- 5.2 use test questions that are comprehensive and will adequately assess the trainee's competence appropriate to the level being examined;
- 5.3 ensure that questions are up to date;
- 5.4 prescribe the conditions where the examinations can take place and the procedures for invigilation to be conducted;
- 5.5 secure procedure that will prevent cheating;
- 5.6 secure validation procedures to record results for the benefit of the MARINA; and
- 5.7 embed modular, formative and summative examinations in the LMS. Practical assessment shall be conducted on the approved and registered centers of the institutions and in the presence of accredited assessors.

Section 6. Only MTIs accredited as an entity in accordance with existing policies may apply for the delivery of courses through distance and e-learning mode.

Section 7. The applicant MTI shall be required to comply with all the requirements of herein policy and its subsequent amendments. The application to offer training courses through distance and e-learning shall be evaluated and approved in accordance with the process provided therein.

Section 8. Distance and e-learning can be delivered through any of the following modes:

- 8.1 *Blended Learning* – the combination of learning at a distance (for the theoretical component) and the traditional face-to-face on campus training (for the practical component); or
- 8.2 *Online learning* – the mode of distance and e-learning that uses purely online tools for learning wherein lectures, assignments, tests are all enabled by virtual platform.

Section 9. Annex 1 provides the complete list of STCW mandatory training courses

that may be delivered through blended learning and online learning. Those that can be offered through blended learning are courses that require use of laboratory equipment and/or simulators in training and assessment. On the other hand, training courses that can be delivered through online learning are those whose practical exercises and assessment can be conducted as table-top exercises.

Section 10. All STCW mandatory training courses that shall be delivered through distance and e-learning shall require prior approval from MARINA based on the requirements of this Circular, which shall be valid in accordance with the approved MARINA Circular on Approval of Courses subject to regular monitoring and surveillance.

Section 11. The MTI shall have an LMS as referred to item f Section 3 Article III.

Section 12. The offering of training courses through distance and e-learning shall be covered in the quality standards system of the institution. The MTI shall have a documented Quality Standards System (QSS) as required under Regulation 1/8 (Quality Standards) of the STCW Convention, 1978, as amended. The QSS shall cover all relevant systems, processes and procedures to ensure the achievement of defined objectives, standards of competence, knowledge, understanding and proficiency prescribed under the STCW Convention and Code, including the implementation and delivery of training courses through distance and e-learning.

Section 13. Conduct of practical exercises and assessments that require the use of laboratory equipment and/or simulator shall be conducted face-to-face except when cloud-based simulator is suitable but for practical exercises only (**See Annex 3**).

Section 14. The requirements set under this Circular shall be applicable only to STCW mandatory training courses required for purposes of issuance of relevant STCW certificate.

Article V SPECIFIC PROVISIONS

Section 15. Learning Management System (LMS)

15.1 The LMS shall be able to put all functions for on and offline course operation together such as term operation and course management, assessments for learning evaluation, trainees work scoring and correction, attendance and progress management, and certificate issue and setting.

15.2 Social media content such as videos and live streams shall be integrated into the system to create an immersive learning experience.

- 15.3 Learning pages shall be fully customized in the style of web pages with modular components. The LMS can be linked via YouTube API to enable simultaneous YouTube live streaming.
- 15.4 The storage and management of certification which allows on-demand printing of the trainees' entire history of certifications by course or single classes should be available with the customization of certificate templates.
- 15.5 The function to add video watermarks is required in order to safeguard intellectual property from external leaks. These watermarks can be both texts and images and also allow the tracing of the leakage route even if it is an external recording of the lecture.
- 15.6 The platform should support content curation by allowing users to combine class contents from existing courses to new ones. It should also offer a search engine for finding existing class contents saved in the pool.
- 15.7 The LMS to be used in the delivery of training courses shall comply with the following:

15.7.1 Administration

- .1 A unique personal account shall be assigned to every trainee to access the training materials, participate in the teaching-learning activities, and submit assignments to comply with the course requirements.
- .2 The access control security function shall provide a facility for the System Administrator to create, suspend and terminate an existing user's access rights for a specified period of time or indefinitely.

15.7.2 Documentation / Conduct

A mechanism in the LMS shall include a set of guidelines that show what is to be expected in the course including, but not limited to:

- .1 Course information
 - .1 Introduction
 - .2 Course Outline
 - .3 Course Schedule (online sessions)
 - .4 Learning Outcomes
 - .5 Instructors and Assessors (bio and contact information)
 - .6 Text and Resources
 - .7 Assessment
 - .8 Checklist of Activities and Assignments

- .9 System or Technical Requirements
 - .10 Help and Technical Support
 - .11 Link to the Library and other resources
 - .12 Academic Integrity and Netiquette
 - .13 Institutional links: American Psychological Association (APA), Good Writing, Academic Dishonesty
- .2 Communications
 - .1 Announcements
 - .2 Course Email
 - .3 Discussion Forums
 - .4 Online bulletin board
- .3 Content
 - .1 Modules
 - .2 Presentation materials
 - .3 Instructor notes
 - .4 Reading and additional resources
 - .5 Assignments
 - .6 Self-assessment
 - .7 Examination and assessment
- .4 Trainee course feedback form

15.7.3 Tracking and Monitoring

- .1 The LMS shall be able to track and monitor the progress of each trainee in completing all course activities and assignments including the evaluation conducted by the instructor.
- .2 Presentation materials shall require active participation from the trainees at various points to ensure that they are continuously participating. Activities shall involve the trainees' progress and material-related questions be raised to gauge their understanding as well as participation. A separate modular/ function/ competency-based examinations and activities have to be set in place.
- .3 A mechanism should be available to track the trainee's progress consisting of time spent viewing the materials as well as grading of information.
- .4 For synchronous delivery of teaching-learning activities, sufficient audio-video recordings and screenshots with time stamps shall be kept for each training course as proof of its actual conduct.
- .5 MTIs shall be able to maintain a complete record of

trainees' attendance in training courses offered through distance and e-learning and be able to provide this evidence during monitoring and surveillance activities of the MARINA.

15.7.4 Reporting

- .1 The LMS shall have a mechanism in place for reports generation where details of access to different course elements were made by the instructors and the trainees (the duration of access, total time accessing over multiple sessions and a variety of statistics analyzed over the course). This reported data may extrapolate an index of trainee participation in the course and subsequently a rough correlation to the distance equivalent of attendance in a course.

15.7.5 Content and Format

- .1 The initial content shall present the information required by the MARINA. However, there shall be a continuous check to ensure that the content is accurate and updated. It is critical that there is a formal process to recommend and track changes in a course.
- .2 There shall be a mechanism to ensure that course changes are recommended by knowledgeable people and reviewed by a group not directly involved with those changes.
- .3 Ensure that all source information for a course is identified and referenced. This would require extensive documentation of information in an appropriately referenced format.
- .4 If electronic based resources should be linked, it shall be in a direct and easy access format. These links shall be reviewed prior to the start of each course to ensure that they are valid links and direct the trainees to the correct information.
- .5 Formats used shall be of open standard, consider limited bandwidths available for trainees, readily available, secure against unauthorized access or accidental loss and the least expense to users.
- .6 Interactive video lecture forms the foundation of the formal course delivery. However, workbooks for study and practice examples shall be made available to users with very limited internet bandwidth or no internet

connectivity.

Section 16. Delivery Infrastructure

16.1 The training course delivered through distance and e-learning or blended learning mode should be supported by a reliable/fast internet connection.

16.2 A mechanism to allow the trainee to receive all course materials in an appropriate time and order, and access the course instructor and fellow course participants for discussions and to be able to seek answers to questions by any of the following means:

- .1 disk/downloaded data; or
- .2 internet connection; or
- .3 combination of the preceding means.

16.3 The MTIs should document and take advantage of existing communications for the trainees to have seamless interaction by means of, but not limited to, the following:

- .1 telephone;
- .2 email;
- .3 learning platforms; and
- .4 virtual classrooms;

Section 17. Receiving Technology

17.1 MTIs shall ensure that the hardware and software of the device used by the trainees are compatible with their system. Such minimum specifications shall be part of the enrolment requirement of the MTI which should be clearly explained and checked prior to enrolment of the trainees.

17.2 Operating systems

17.2.1 The operating system shall run in Windows or MacOS.

17.3 Video and audio

- .1 The platform of the MTI shall be able to support existing video and audio systems and acceptable older versions
- .2 The MTIs shall send a notice to the trainee should any change in preferable versions take place
- .3 An evaluation mechanism shall be made to test and ensure

that new video and sound formats support the application for distance learning and e-learning with current content. A recommended category or suggested versions shall be readily available for trainees

17.4 Internet browser

- .1 The platform of the MTIs shall be able to support existing operating systems and acceptable older versions
- .2 The MTIs shall send a notice to the trainee should any change in workable versions take place
- .3 An evaluation mechanism shall be made to test and ensure that new browsers support the application for distance learning and e-learning with current content. A recommended category or suggested browsers shall be readily available to the trainees
- .4 An adopted automatic system check of the trainee's system can be made and produce automatic recommendations about necessary upgrades shall be readily available.

Section 18. Security and Intellectual Property

- 18.1 The system shall be safeguarded from unauthorized access and attempts to hack. Only qualified people shall have access to the system and the appropriate module for the function they perform. Instructors, Assessors and staff shall use only computers to ensure the system remains secured. A policy of changing passwords on a regular basis should be in place.
- 18.2 Appropriate backups shall take place to ensure that curriculum materials as well as grades are not lost through computer crash, theft, fire, infrastructure failure or other incidents and storing of back-ups in two appropriately independent off-site locations.
- 18.3 MTIs shall utilize software and digitized products (computer programs) which are copyrighted.

Section 19. Systems Audit

- 19.1 The LMS shall maintain an audit trail of any changes or updates made in any information that are considered as vital and should maintain the audit log with information such as the following:
 - .1 users who are accessing the system;
 - .2 parts of the application that are being accessed;
 - .3 fields that are being modified;
 - .4 results of these modifications;

- .5 attempted breaches of access;
- .6 attempted breaches of modification rights; and
- .7 timestamp.

19.2 Ensure an audit trail is kept for all transactions and all audit transactions logged are kept on the trail file or trail database from where system can generate different audit reports.

Section 20. Application Security

20.1 The LMS should be completely secure and foolproof with incorporation of industry standard proven data encryption techniques and methodologies. Those encryption techniques should be audited in timely manner to detect loopholes and updated with the latest patches, in order to ensure that the mechanisms are fitted with the latest security features.

20.2 User sessions and cookies should be uniquely re-generated and stored securely each time they login.

20.3 URL restriction should be tight. The system should recognize a logged-in user with proper rights and only present the part of the system that falls within his/her authorization scope. Furthermore, trying to access a URL by guessing should also be prohibited.

20.4 Configuration and other sensitive system-level artifacts should be securely stored.

20.5 The access control security function shall provide a facility for the system administrator to suspend an existing user's access rights for a specified period of time or indefinitely.

Section 21. User Interface Security

21.1 No system level file/information should be accessible throughout the web browser. The system should never allow executing direct files.

21.2 Facility can be provided to lock a user and unlock as and when required.

21.3 No invalidated input should be accepted in any web forms – all incoming data should be validated, checked and purified before acting.

21.4 In case of any system failure or error condition, no sensitive information (e.g. database credential) should be displayed on the site. All kinds of errors should be suppressed, logged, efficiently handled and should only be accessible by the administrators with proper rights.

- 21.5 SQL/XML/Code injection, Session hijacking/fixation, Output Escaping, Cross-Site Request Forgery, Cross-Site Scripting, Enforced Same Origin Policy, Parameter Tampering, Directory Traversal, Denial of Service etc. should be prevented, logged, and reported.
- 21.6 Shall have a privilege and password system that is very flexible and secure and that enables host-based verification.
- 21.7 Shall have a password security by encryption of all password traffics when connecting to a server.
- 21.8 Shall have a two (2) factor authentications:
- .1 Username and password; or
 - .2 Time-based One-time Pin (TOTP) via email.
- 21.9 The system shall have a forgot password feature for all users.
- 21.10 The system should have policy for brute force attacks.
- .1 Accounts with 3 failed login attempts should be blocked.
 - .2 Recover of password should be done by the assigned administrator using administration panel.
 - .3 Idle time of 15 minutes should automatically log out or can be set by IT Admin
 - .4 Only alpha and numeric keys are allowed in username and password field.
 - .5 Accounts which are idle for seven days shall be temporarily disabled.
 - .6 The system should have a password reset tool to be managed by the end user requested via email.

Section 22. Data Security

- 22.1 The LMS shall comply with R.A. 10173 otherwise known as the "Data Privacy Act of 2012", in order to respect and protect the privacy of each individual/applicant as prescribed in the abovementioned law. In connection with this, the MTI shall come up with the "Data Privacy Statement" to be posted in the Front-End System and shall notify the users every time they log in to the system.
- 22.1.1 The system shall comply with the Data Privacy Policy as approved by Data Privacy Officer of the institution and should comply to the Data Privacy Act of the Data Privacy Commission.
- 22.1.2 No personally identifiable information may be exposed within and outside the system without proper authorization as privacy of the user data shall be dealt with utmost priority.

22.1.3 Any attempt to breach the security will be recorded with all the relevant data.

22.1.4 If the system is accessed in the time not defined by the System Administrator, e.g., in the case of production deployment, all options will be locked and the user will not be able to use the system.

22.1.5 Reports can be retrieved for all audit logs.

Article VI APPROVAL CRITERIA

Section 23. Training Course Requirements

23.1 Course Design and Development

23.1.1 Pursuant to Regulation 1/6 and Section A-I/6 of the STCW Convention, 1978, as amended and the STCW Code, respectively, MTIs shall ensure that trainings are designed and structured in accordance with written programs, methods and media of delivery, including the necessary procedures and course materials to achieve the prescribed standards of competence under the said Convention.

23.1.2 The documentation of the training courses to be delivered through distance and e-learning shall consist of the following minimum components:

- .1 Part A (Course Framework);
- .2 Part B (Course Outline and Timetable);
- .3 Part C (Course Syllabus);
- .4 Part D (Instructor's Guide) and Instructional Materials; and
- .5 Part E (Course Assessment) and Assessment Tools for written examination and practical assessment.

23.1.3 MTIs shall submit its own developed Instructor's Guide and Instructional Materials and Assessment Tools for written examination to be delivered through distance and e-learning based on the minimum training standards prescribed by the Administration.

23.1.4 The topics and corresponding teaching-learning activities that will be delivered through distance learning and e-learning shall be evidently identified from those that would require face-to-face instructor and trainee interaction.

23.1.5 For asynchronous delivery, the MTI shall design and develop the instructional materials as self-learning and interactive materials, and formative assessments shall be embedded therein to ensure that learning outcomes are checked at specific points where they are expected to have been achieved by the trainees.

23.1.6 The MTI shall specify the minimum number of hours for identified classroom and laboratory interface based on the time allotted for each topic in the Course Outline and Timetable, exclusive of the time needed for examination and assessment.

23.1.7 The number of training hours set in the training standards are the minimum and maybe increased, as necessary, to ensure that trainees are able to demonstrate the required competences.

23.2 Textbooks and Other References, Videos and Other Teaching Aids

23.3.1 It shall be the responsibility of the MTIs to select the textbooks and other references, videos and teaching aids that will be used in the design, structure and effective delivery of the training courses they intend to offer.

23.3.2 The list of textbooks and other references, videos and teaching aids to be used shall be provided and submitted in support of the MTI's application for approval using the approved Accreditation Forms.

23.3 Administrative Requirements

23.3.1 The MTI shall comply with all the Administrative Requirements as provided under existing MARINA Circulars.

Section 24. Examination and Assessment Requirements

24.1 The MTI shall have a documented system for examination and assessment as required under existing MARINA Circulars in relation to Section A-I/6 of the STCW Code.

Section 25. Instructor and Assessor

25.1 MTIs shall also ensure that Instructors and Assessors who are responsible for the training and assessment including those responsible for the supervision thereof, are appropriately accredited in accordance with the existing qualification standards prescribed by the MARINA and the MTI's own quality policies and procedures.

25.2 The MTI shall ensure that in every course, there shall be one (1) Lead Instructor and one (1) Assessor assigned per training course. In addition, there shall be an alternate Instructor and Assessor on standby in cases where the Lead Instructor and/or Assessor are unavailable.

25.3 The Instructors and Assessors shall have attended a:

- .1 distance learning and e-learning; and
- .2 familiarization on how to use the Learning Management System (LMS) that they will be using which may be issued by the MTI or by the developer of the LMS.

Section 26. Supervisor

26.3.1 The supervision function of in-service training conducted by qualified Instructor and Training Course Assessor on seafarers intended to be used in qualifying for Certification shall now be assumed by the Training Manager, Training Director or any person designated by the MTI.

26.3.2 The Supervisor shall have attended a:

- .1 distance learning and e-learning; and
- .2 familiarization on how to use the Learning Management System (LMS) that they will be using which may be issued by the MTI or by the developer of the LMS

Article VII ISSUANCE OF CERTIFICATE OF COURSE APPROVAL

Section 27. Approval of the Training Course

27.1 The approval of training courses to be delivered through distance and e-learning shall follow the process and requirements provided under existing MARINA Circulars.

27.2 The basis for evaluation of distance and e-learning is contained in **Annex 2** of this Circular.

Article VIII COMPLETION OF THE TRAINING COURSE

Section 28. Completion of the Training Course

28.1 The MTI shall ensure that the trainees, upon enrolment shall be

compliant with enrolment requirements provided in MARINA Circular on Approval of Courses.

28.2 Trainees enrolled in distance and e-learning courses should be able to complete the requirements of the course within one (1) year from the time of enrolment.

28.3 Trainees who have successfully completed the training courses delivered through distance and e-learning and passed the examination and assessment thereof shall be issued a Certificate of Training Completion.

28.4 The format of such certificate shall be in accordance with the existing MARINA Circulars.

Article IX FACILITIES AND EQUIPMENT

Section 29. The MTIs shall provide its own training equipment as required in Part A (Course Framework). The training equipment prescribed therein are the minimum and do not prevent the MTIs from using additional equipment that can help achieve the prescribed standards of competence under the STCW Code. They shall further ensure that training equipment and simulators in laboratories and simulator rooms, respectively, are set-up in such a way that each trainee shall have sufficient exposure to use them during trainings and assessments.

Section 30. A list of Training Facilities and Equipment to be used shall be provided and submitted in support of the MTI's application for approval using the approved Accreditation Forms.

Section 31. Use of cloud-based simulation may be allowed depending on the course, subject to evaluation of the submitted course package. **Annex 3** provides the list of courses that address specific competences where cloud-based simulation may be used.

Article X SCHEDULE OF FEES

Section 32. All applicable fees required to approve the conduct of distance and e-learning courses shall be paid separately and in the same amount with regular courses as prescribed under the existing table of fees and charges.

Article XI

FINES AND PENALTIES

Section 33. Fines and Penalties are prescribe in accordance with the approved MARINA Circular on Approval of Courses.

Article XI PENALTY CLAUSE

Section 34. Any violation of the provisions of this Circular and other related MARINA issuances shall be governed and sanctioned by the provisions of the IRR of RA 10635, and its subsequent amendments, and existing policies including any amendment or addendum thereof, as may be promulgated by the MARINA.

Article XII TRANSITORY PROVISION

Section 35. MTIs who have met the requirements for the conduct of Blended Learning Mode under MARINA Advisory 2020-59 shall be allowed to continue operations for a maximum period of one (1) year from the date of effectivity of this Circular in order to give them ample time to fully comply with the provisions stated herein, subject to monitoring and surveillance.

Section 36. MTIs referred to in Section 27 who fail to fully comply with the provisions of this Circular within the aforementioned period shall cease operations. However, they may be allowed to apply as new applicant in accordance with Article VI herein.

Article XIII REPEALING CLAUSE

Section 37. STCW Circular No. 2016-12 and MARINA Advisory No. 2020-59 are hereby repealed accordingly and any provision of existing MARINA and STCW Circulars, rules and regulations which are contrary or inconsistent herewith are hereby superseded, repealed or amended accordingly.

Article XIV SEPARABILITY CLAUSE

Section 38. Should any provision or part of this Circular be declared by any competent authority to be invalid or unconstitutional, the remaining provisions or parts hereof shall remain in full force and effect and shall continue to be valid and effective.

**Article XV
EFFECTIVITY**

Section 39. This Circular shall take effect within fifteen (15) days after its publication in a newspaper of general publication.

Manila, Philippines on DEC 29 2021

BY AUTHORITY OF THE MARINA BOARD:


VADM ROBERT A EMPEDRAD AFP (Ret)
Administrator

SECRETARY'S CERTIFICATE

This is to certify that Memorandum Circular No. SC-2021- 10 has been approved by the Maritime Industry Authority (MARINA) Board during its 289th Regular Meeting on 29 November 2021.


ATTY. MAXIMO I. BANARES, JR.
Corporate Board Secretary

Date of Publication:
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