

ANNEX B: ELECTRONIC PERMIT-TO-WORK SPECIFICATIONS TEMPLATE

General Requirements

- 1) The system must be able to generate, submit and process paperless Permit-To-Works (PTWs).
- 2) The information required must include but not limited to the date, time, requester, assessor, approver, work location, description, pictures, checkbox for questions and answers (if applicable).
- 3) The system should have the ability to pinpoint and capture the location of the mobile device used so as to show that the creation, submission and approval of the PTW are done on site.
- 4) Users must be able to pre-set workflows to automate processes. These processes include recording observations, acknowledging observations, submitting closure report, verifying report, revoking e-PTW and closing the permit on mobile devices. The workflows must not be skipped i.e. from applicant to approver directly.
- 5) The e-PTW must ensure that only the authorised persons can assess and approve the permit to work. There must be safeguards to disallow falsification.
- 6) The e-PTW must be able to capture data such as text, date, multiple photos per inspection, comment, time stamp of data input or changes and identity of users. It must have an audit trail for investigation purposes.
- 7) Site drawings, photos and supporting documents should be able to be attached to the e-PTW form and be electronically routed to the authorised person via their mobile devices. Notification must be sent to the authorised person once submission of the form is done for the responsible person's assessment and approval of the e-PTW.
- 8) User must be able to set a deadline for the Permit expiry. The system must trigger automated alerts to relevant supervisors to follow up on cases close to expiry in accordance to the pre-set workflow.
- 9) The e-PTW application must allow the authorised person to revoke an issued permit to work, if the work is unsafe to proceed or poses a risk to the safety, health and welfare of persons at work.
- 10) The information must be able to be viewed, validated and approved by the stipulated deadline.
- 11) The web interface dashboard of the e-PTW system must be able to show which are the live Permits, which Permits have closed and which Permits are being reviewed.
- 12) Each e-PTW must have its own unique identification number.
- 13) Default language of the e-PTW must be in English.

System performance

- 14) The e-PTW application must be able to run on all major mobile platform devices such as Android and iOS, including any new software updates to the mobile platform. The web interface of the app must be compatible with commonly available browsers in the market.
- 15) The e-PTW must be accessible over the internet and be able to function with or without live connection. The data must be synchronised in real time once live connection is established. Users must be able to access the e-PTW from mobile device or web-based interface.

Record retrieval

- 16) Upon request by any relevant agency, such as MOM officers during on-site inspection, the e-PTW documents must be retrievable and available.
- 17) The digital e-PTW should be convertible to PDF format if required, printable and be used as hardcopy reference.
- 18) The e-PTW data should be downloadable in structured form in MS Excel to aid statistical analysis upon any relevant agency's request.
- 19) Past records must be kept and maintained for a minimum of 5 years from the PTW creation date.
- 20) All records must not be modified after approval and completed.

Training

- 21) The contractor must provide adequate training to users of the e-PTW system. The contractor must ensure that users have a mobile device that can interface with the e-PTW.