**RESERVE BANK OF FIJI**

# REQUEST FOR QUOTATION

**Fire Sprinkler System - Replacement of the Isolating Valves, Flow switches and install a new sprinkler gong.**

Requirement Specification Document

## A. PROJECT OVERVIEW

1. The sprinkler system at the Reserve Bank of Fiji requires replacement of 19 Flanged OS&Y supervised gate valves (sprinkler isolating valves), 18 flow switches and the installation of a new sprinkler water motor gong.
2. The current valves and flow switch are aged and corroded.
3. The replacement will ensure compliance with AS 2118 (Automatic Fire Sprinkler Systems), AS 1851 (Routine Service of Fire Protection Systems and Equipment), and AS 1670.1 (Fire Detection, Warning, Control & Intercom Systems).
4. The project scope includes supply, installation, testing, commissioning, and integration with the Fire Indicator Panel (FIP) with reinstatement of the external audible sprinkler gong alarm.

## B. OBJECTIVE

5. Replace all existing 19 flanged OS&Y supervised gate valves with new, compliant, tamper-supervised valves (including the Main stop valve).
6. Replace the existing 18 sprinkler system flow switch with a new UL/FM or LPCB-approved model.
7. Install and commission a new sprinkler water motor gong to reinstate external audible alarm functionality.
8. Conduct pressure, flow and operation testing in line with AS1851.
9. Perform an integration test with the building's Fire Indicator Panel (FIP) to verify correct alarm and supervisory signal transmission.
10. Verify operation of the sprinkler gong to provide a clear external audible alarm upon sprinkler system activation.
11. Provide compliance certification and updated system documentation.

## C. SCOPE OF WORKS.

12. Site survey and isolation planning to minimise downtime of sprinkler protection.
13. Removal and disposal of existing 19 Flanged OS&Y supervised gate valves and flow switch.
14. Supply and installation of new valves and flow switch (UL/FM or LPCB listed).
15. Connection of valve supervisory switches to the sprinkler monitoring circuit and FIP.
16. Connection of the new flow switch to the FIP alarm circuit.
17. Hydrostatic testing of joints and valves in accordance with AS 2118.
18. Operational testing of all valves and flow switch per AS 1851.
19. Integration test with the FIP to ensure:
    - Supervisory signals (valve tamper) display correctly.
    - Alarm signals (flow switch) activate correctly.
    - Signals are transmitted to the monitoring centre (ASE, if applicable).
20. Supply and install a sprinkler water motor gong (new installation, mechanical water driven type with weatherproof housing)
21. Commissioning of sprinkler gong to ensure operation upon water flow test.
22. Handover, certification, and update of system drawings and asset registers.

## D. TECHNICAL SPECIFICATIONS/STANDARDS.

23. All works shall comply with the following standards, codes, and guidelines:

1. **Automatic Sprinkler System**
    - AS 2118.1 – Automatic Fire Sprinkler Systems – General Systems
        - Governs system design, installation, and performance.
        - Valves must be UL/FM/LPCB approved and sized in accordance with system hydraulics.
        - Valves to be Flanged Outside Screw and Yoke (OS&Y) type with tamper switch for supervision.

2. **Fire Detection & Alarm Integration**
    - AS 1670.1 – Fire Detection, Warning, Control and Intercom Systems – System Design, Installation and Commissioning
        - Governs the connection of valve supervisory switches and flow switches to the Fire Indicator Panel (FIP).
        - Supervisory signals (valve closure) shall be distinguishable from alarm signals (flow).
        - Connection wiring to comply with separation of safety circuits and fault monitoring requirements.
3. **Sprinkler Water Motor Gong**
    - Must comply with AS 2118.1 for audible water motor alarms.
    - To be a mechanical, water-powered type with weatherproof gong housing for external installation.
    - To be connected downstream of the flow switch so that water flow from sprinkler operation or test drain activates both the FIP and the gong.
    - Must be installed in a visible and audible external location.
4. **Electrical & Wiring Rules**
    - AS/NZS 3000 – Electrical Installations (Wiring Rules)
        - Covers electrical connections of valve supervisory switches and flow switches to the FIP.
        - Fire-rated cables to be used where specified.
        - Terminations must be labelled and tested for continuity and insulation resistance.
5. **Product Compliance**
    - All replacement valves and flow switches must be:
        - UL, FM, or LPCB certified for fire protection use.
        - Supplied with manufacturer data sheets and compliance certificates.
        - Clearly marked with identification tags (valve number).
6. **System Integration Requirements**
    - Valve supervisory switches shall be fail-safe type (open or closed-circuit supervision).
    - Flow switch must have an adjustable retard mechanism to prevent false alarms from water surges (typically 0–90 seconds).
    - All supervisory and alarm signals must be displayed at the FIP and, where applicable, transmitted via the ASE to the National Fire Authority.
7. **Authority & Certification**
    - All works to be carried out by a licensed fire protection contractor.
    - Final sign-off by a Registered Fire Protection Engineer / Certifier.

## E. TESTING & COMMISSIONING

24. All testing and commissioning must be carried out in accordance with AS 1851:2012**,** AS 2118.1, and AS 1670.1**.** Test records must be submitted to the client for review and future maintenance reference.

**25. Pre-Commissioning Checks**

1. Verify all new valves and flow switch are UL/FM/LPCB certified and installed correctly (orientation, flow direction, accessibility).
2. Confirm all electrical connections to the Fire Indicator Panel (FIP) are labelled and terminated.
3. Ensure isolation plans are followed and sprinkler system protection reinstated before testing begins.
4. Inspect leaks, rust protection, and proper identification tags on each valve.

**26. Valve Testing (OS&Y Supervised Gate Valves)**

1. Operation Check: Fully open and close each valve, ensuring smooth spindle movement.
2. Supervisory Signal Test:
    i. Partially close valve to operate tamper switch.
    ii. Confirm supervisory (isolated) signal is generated at FIP.
    iii. Confirm restoration when the valve is fully re-opened.
3. Hydrostatic Test: Pressurise section of pipework to system working pressure, hold for 2 minutes, check for leaks at flange connections.
4. Visual Verification: Confirm OS&Y stem position is clearly visible (open vs. closed).

**27. Flow Switch & Sprinkler Gong Testing**

1. Water Flow Simulation: Open test drain downstream of the flow switch to simulate sprinkler head operation.
2. Time Delay Check: Confirm retard delay operates as per manufacturer's settings to prevent nuisance alarms.
3. Alarm Signal Check: Ensure flow switch activation generates an alarm condition on the FIP.
4. Sprinkler Gong Check: Confirm gong sounds promptly upon water flow.
5. Signal Transmission: Confirm alarm signal is transmitted to the external monitoring centre (ASE).
6. Reset Check: Close test drain and confirm alarm clears and FIP resets.

**28. Integration Testing with FIP**

For each valve and the flow switch, conduct the following:

1. Supervisory Signal (Valve Tamper):
    i. Close valve partially → FIP should display "Valve Isolated / Supervisory".
    ii. Confirm supervisory signal transmits to monitoring centre.
    iii. Re-open valve → signal clears at FIP.
2. Alarm Signal (Flow Switch):
    i. Initiate flow → FIP should display "Sprinkler Flow Alarm".
    ii. Confirm alarm signal transmits to monitoring centre.
    iii. Confirm FIP event log records alarm event.
    iv. Reset system and ensure signal clears.

3. Cross Verification:
    i. Supervisory signals must not generate fire alarms.
    ii. Alarm signals must not register as supervisory only.

**29. Documentation of Results**

1. Record each valve number, location, and test outcome in a commissioning log.
2. Record flow switch activation time, retard delay setting, and alarm receipt confirmation.
3. Compile test sheets and submit with the final handover package.
4. Provide O&M manuals, warranty details, and recommended spare parts list.

## F. HANDOVER & DOCUMENTATION

30. The contractor shall provide a complete handover package upon practical completion. This must include, at minimum:

1. **Test & Commissioning Reports**
    - Individual valve test sheets (operation, hydrostatic, supervisory signal).
    - Flow switch test sheets (activation time, retard delay, alarm verification).
    - FIP integration test records (supervisory and alarm signals, monitoring centre verification).
    - Sprinkler Gong Test Report showing sound output verified and logged.
2. **Product Data & Warranties**
    - Manufacturer datasheets for valves, flow switch and sprinkler gong.
    - Warranty certificates (minimum 12 months, specify longer if available).
    - Recommended spare parts list (e.g. spare supervisory switch, gaskets, seals).
3. **Training**
    - Brief training session for site plant & properties staff on valve operation, isolation, and inspection requirements.

## G. POST-HANDOVER SUPPORT

31. The contractor shall provide post-handover support as follows:

1. **Defects Liability Period (DLP)**
    - 12-month minimum defects liability period.
    - Any faults, leaks, or supervisory/alarm issues within this period shall be rectified at no additional cost.
2. **Warranty Support**
    - Manufacturer and contractor warranties to be clearly stated.
3. **Ongoing Maintenance Integration**
    - Provide service intervals and inspection requirements in line with AS 1851 (monthly visual, annual function tests, 5-year hydrostatic, etc.).
4. **Emergency Support**
    - Provide 24/7 contact details for emergency support during DLP.
5. **System Optimisation**
    - Contractor to return after 3 months to conduct a joint inspection with building representatives to confirm:
        - All valves remain in correct operating condition.
        - Supervisory switches and flow switch signals remain accurate.
        - No water hammer or nuisance alarms are occurring.

## H. PRELIMINARY AND GENERAL

32. Tenderer to inform himself fully:
    1. Each Tenderer must inspect and examine the site, its surroundings, and shall satisfy himself before submitting his tender and nature of the works and materials necessary for the completion of the Works, and the means of access to the site, the availability, conditions and rates of pay of labour and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his Tender.
    2. Each Tenderer must make all allowances he deems necessary to ensure the Works are completed within the mentioned timelines provided.
    3. If a Tenderer has any doubt as to the meaning of any portion of the Works, he shall, when submitting his tender include a statement of the interpretation upon which he relies and upon which his tender has been prepared and submitted.
    4. The Tenderers are to strictly comply with the tender documents.
    5. Tenderers also have the chance to propose an alternative solution to the design specifications that is economical for RBF.

33. Temporary services & conveniences:
    1. The Contractor shall be able to use water and electrical services in the existing premises during the construction of the works. Sanitary services will be provided by RBF.
    2. RBF will provide all power and water necessary for the construction and amenities for all Contractors, free of charge. These services are located close to the area of work and the Contractor shall keep all services in a clean and tidy state.
    3. The Contractor shall bring their cleaning equipment, this includes vacuum, dustpan and brooms.

34. Protection in general
    1. Care shall be taken to protect all existing services, plant, furniture, doors, paintwork and other features from any damage. The Contractor shall be liable for any damage to the building structure or components.

## I. SITE INSPECTION ARRANGEMENT:

35. Site inspection: **Between 9th – 19th September 2025.**
36. Interested bidders are encouraged to attend the site visit and thoroughly assess the existing system.
37. Interested parties must confirm attendance or request technical information by contacting:

| | | | |
|---|---|---|---|
| Name: | Setareki Koto | Mervyn Wesley | Lionati Panapasa |
| Contact: | 3223380 | 9988027 | 3223236 |
| Email: | setareki@rbf.gov.fj | mervyn@rbf.gov.fj | lionati@rbf.gov.fj |

## J. PROPOSAL SUBMISSION DEADLINE

38. The proposal will be open for 3 weeks from the date of notification.
39. All submissions must be received no later than **9th October 2025 at 4pm** local time.
40. Incomplete and late submissions will not be considered.
41. Any extension to the submission period will be communicated formally before the closing date.

## K. TENDER SUBMISSION REQUIREMENTS

42. Interested vendors must submit their proposals by **9th October 2025 at 4pm** at local time and e-mailed to the **Procurement Officer: Sarwan Kumar -** sarwan@rbf.gov.fj & procurement@rbf.gov.fj and **Manager General Administration Services** - Melania Tamaue melania@rbf.gov.fj

    **Proposal format:**

    - Cover Letter.
    - Company Profile and Relevant Experience.
    - Technical Specifications of the valves, flow switch and sprinkler gong
    - Warranty terms, defects liability period, and post-handover support plan.
    - References from similar fire system projects.
    - Cost Proposal and Payment Schedule.
        - Itemised bill of quantities (Supply, installation, testing).
        - Labour vs material costs.
        - Optional extras
        - Exclusions/assumptions.
        - Payment terms.
    - Including administrative requirements.
    - Completed Trade Summary.

43. All proposals must be submitted in **PDF format**. Late or incomplete proposals will not be considered.
44. This information is required to allow RBF to research, compare, and evaluate the suitability and compliance of the proposed devices during evaluation.

## L. ADMINISTRATIVE REQUIREMENTS

45. The Vendor should provide the following valid documents in their proposal submissions:
    - Valid Tax compliance certificate.
    - Valid FNPF compliance certificate.
    - Public liability cover.
    - Insurance cover.

## M. PAYMENT TERMS

46. All prices should be FJD and VIP.
47. The RFP Bid must remain valid for 60 days.
48. Provisional Tax of 5% will be deducted for any contract over $1000 per annum.
49. For overseas companies who does not have any office/business locally, 15% withholding tax will be deducted from the contract amount.

## N. TENDER PROCESS

50. The steps below provide a brief outline of the Reserve Bank of Fiji's Tender process.
    - Interested vendors can liaise with the Reserve Bank of Fiji to clarify any issues before submitting their tenders.
    - Vendors must submit tenders within the time specified.
    - Analysis of the submitted tender will be done by the Reserve Bank of Fiji.
    - Clarification of tender items, if necessary.
    - Awarding of tender
    - Meeting with selected vendor regarding project delivery and preparation of the contract terms and conditions
    - Contract Signing.

## O. SELECTION PROCESS

51. Tender may not necessarily be awarded to the lowest bidder. The Bank, when analyzing the proposal, will keep in mind the delivery and support services provided by the chosen company.

## P. TRADE SUMMARY

Below is the Trade Summary which all vendors are required to fill.

Name of the Company: _____

Period of the Entire Project: _____

Workmanship Warranty: _____

Product Warranty:_____

| Item | QTY | Description / Model | Certification (UL/FM/LPCB) | Unit Price | Total Price | Installation & Labour | Testing & Commissioning | Warranty (Months) | Notes / Deviations |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 19 | Flanged OS&Y Supervised Gate Valve | UL/FM/LPCB | | | | | | |
| 2 | 18 | Flow Switch (Sprinkler) | UL/FM/LPCB | | | | | | |
| 3 | 1 | Sprinkler Water Motor Gong | UL/FM/LPCB | | | | | | |

**Cost Summary:**

**VEP:_____VAT: _____VIP:_____**