# Incident Reporting and Management

1. **User-Friendly Incident Reporting**
   1. Simple, accessible interface for employees to report:
      1. Incidents
      2. Near-misses
      3. Hazards
2. **Automated Notifications**
   1. System must send alerts to relevant personnel based on:
      1. Type of incident
      2. Severity level
      3. Location
3. **Incident Classification**
   1. Ability to classify incidents by:
      1. Severity
      2. Type (e.g., injury, property damage, environmental)
      3. Department
4. **Full Investigation Workflow**
   1. Step-by-step processes including:
      1. Initial report logging
      2. Assignment to investigators
      3. Root cause analysis
      4. Corrective/preventive action tracking
      5. Review and closure
5. **Corrective Action Tracking**
   1. Monitor implementation of:
      1. Risk mitigation measures
      2. Process changes
      3. Training updates
6. **Root Cause Analysis Tools**
   1. Support for methods like:
      1. 5 Whys
      2. Fishbone (Ishikawa) diagram
      3. Fault tree analysis
7. **Audit Trail and Compliance**
   1. Maintain a log of:
      1. Who entered and edited incident records
      2. Timelines and actions taken
      3. Status history
8. **Reporting and Analytics**
   1. Generate reports on:
      1. Incident trends over time
      2. Department-specific statistics
      3. Root cause recurrence
      4. Leading and lagging safety indicators
9. **Mobile Access and Offline Support**
   1. Incident reporting should be supported:
      1. On mobile devices (via browser or app)
      2. With offline submission capability for remote areas

# Compliance Management

**1.Compliance Management Requirements**

* 1. Track compliance with:
     1. Health and Safety at Work Act (HASAWA 1996)
     2. ISO 45001 and other applicable standards
  2. Ability to upload, store, and categorize legal and regulatory documents.

1. **Automated Alerts and Reminders**
   1. Alerts for:
      1. Upcoming audits
      2. Document expiries
      3. Scheduled reviews or inspections
   2. Reminder emails/notifications for regulatory deadlines.
2. **Risk Assessment Templates**
   1. Include ready-made templates aligned with standards, or allow for:
      1. Customizable risk assessment forms
      2. Department-specific or activity-specific templates
3. **Document Management**
   1. Version control and access logs for:
      1. Compliance checklists
      2. Safety audit forms
      3. Inspection records
4. **Audit Readiness Support**
   1. Maintain a centralized repository for all compliance evidence, including:
      1. Historical audit results
      2. Certification records
      3. Training and qualification documents
5. **Monitoring and Status Dashboard**
   1. Visual overview of:
      1. Compliance gaps
      2. Pending vs completed compliance activities
      3. Real-time status tracking
6. **Integration Support**
   1. Link compliance data with:
      1. Risk assessments
      2. Incident reports
      3. Training records
7. **Mobile Accessibility**
   1. Mobile-friendly access for compliance tasks in the field
   2. Support for uploading documentation or marking items as reviewed/completed on the go
8. **Secure Access and Permissions**
   1. Only authorized users should be able to:
      1. View/edit sensitive compliance documents
      2. Approve risk assessments or compliance checklists

# Audit and Inspection Tools

1. **Inspection Scheduling**
   1. Calendar-based interface for:
      1. Setting up routine and ad-hoc inspections
      2. Assigning inspectors by department, location, or risk category
   2. Recurrence options (e.g., weekly, monthly, quarterly)
2. **Customizable Inspection Checklists**
   1. Pre-loaded or configurable checklists for:
      1. Workplace safety inspections
      2. Equipment checks
      3. Compliance audits
   2. Ability to create inspection templates per site or department
3. **Mobile Inspection Support**
   1. Fully functional on smartphones and tablets
   2. Features include:
      1. Checklist completion
      2. Photo uploads (e.g., of hazards or non-compliance)
      3. Voice notes or annotations
   3. Offline mode for remote or low-connectivity areas
4. **Real-Time Issue Reporting**
   1. Instant flagging of:
      1. Safety hazards
      2. Non-conformance
      3. Corrective actions required
   2. Trigger workflows for immediate notifications and task assignments
5. **Automated Alerts and Notifications**
   1. For:
      1. Upcoming or overdue inspections
      2. Unresolved issues identified in previous inspections
      3. Escalation of critical findings
6. **Inspection History and Audit Trail**
   1. Log and retrieve:
      1. Past inspection reports
      2. Actions taken and dates
      3. Inspector details
   2. Support for audit preparedness
7. **Corrective and Preventive Action (CAPA) Integration**
   1. Link inspection findings to:
      1. Risk assessments
      2. Incident reports
      3. Assigned corrective actions with due dates and tracking
8. **Report Generation**
   1. Generate standardized or custom reports in:
      1. PDF, Excel, or CSV formats
   2. Summary dashboards for:
      1. Compliance scores
      2. Most common issues
      3. Departmental performance
9. **User Roles and Permissions**
   1. Assign inspection rights to designated roles
   2. Limit access to specific sites, departments, or tools
10. **Analytics and Insights**

* Visual dashboards to:
  + Track inspection frequencies
  + Identify trends or recurring issues
  + Monitor corrective action turnaround time

# Employee Health and Safety Training

1. **Centralized Training Module**
   1. Single platform to manage all safety training activities
   2. Includes onboarding, refresher, and role-specific training
2. **Training Material Repository**
   1. Upload and store:
      1. Videos
      2. PDFs and slide decks
      3. SCORM-compliant content
      4. Standard operating procedures (SOPs)
3. **Training Calendar and Scheduling**
   1. Plan sessions by:
      1. Date
      2. Location
      3. Department or role
   2. View past and upcoming trainings
4. **Employee Certification Tracking**
   1. Maintain records of:
      1. Completed training sessions
      2. Certification issue and expiry dates
      3. Trainer details and course version
5. **Automated Reminders and Alerts**
   1. Notify employees and managers about:
      1. Upcoming training sessions
      2. Expiring or expired certifications
      3. Missed mandatory trainings
6. **Self-Service Portal**
   1. Employees can:
      1. Register for courses
      2. Download certificates
      3. View their training history
7. **Assessment and Quizzes**
   1. Post-training evaluations:
      1. Multiple-choice quizzes
      2. Pass/fail thresholds
      3. Randomized questions from a pool
8. **Compliance Reporting**
   1. Generate reports by:
      1. Employee
      2. Department
      3. Course
      4. Certification status
9. **Integration with HR Systems**
   1. Sync employee data from HRM
   2. Auto-assign required trainings based on:
      1. Job title
      2. Department
      3. Risk exposure level
10. **Mobile Accessibility**

* Access training content via mobile app or browser
* Support for media playback and quiz completion on phones/tablets

1. **Audit Trail**

* Log of:
  + Training content changes
  + User completions and certifications
  + Administrator actions

# Risk Assessment and Mitigation

1. **Systematic Risk Identification**
   1. Interface to log and categorize:
      1. Workplace hazards
      2. Operational risks
      3. Environmental and health-related risks
   2. Link risks to:
      1. Locations/sites
      2. Equipment
      3. Departments
2. **Customizable Risk Assessment Templates**
   1. Built-in and user-defined templates supporting:
      1. Likelihood vs severity matrices
      2. Risk prioritization
      3. Job Safety Analysis (JSA)
   2. Department or task-specific templates with reusable formats
3. **Preventive Workflow Integration**
   1. Link risks directly to:
      1. Corrective/preventive actions (CAPA)
      2. Training requirements
      3. Policy or SOP updates
4. **Dynamic Risk Scoring and Classification**
   1. Automatically calculate:
      1. Initial risk level
      2. Residual risk post-mitigation
      3. Escalation triggers for high-risk findings
5. **Approval and Review Process**
   1. Multi-level review with:
      1. Risk owner assignments
      2. Supervisor or safety officer approval
      3. Scheduled review dates and signoffs
6. **Tracking of Risk Controls and Mitigations**
   1. Log and monitor:
      1. Control measures implemented
      2. Effectiveness evaluation
      3. Due dates and assigned persons
7. **Historical Risk Data and Versioning**
   1. Maintain history of:
      1. Previous assessments
      2. Revisions made
      3. Outcomes and lessons learned
8. **Visual Risk Maps and Dashboards**
   1. Display risk heatmaps by:
      1. Location
      2. Category
      3. Department
   2. Interactive dashboards for tracking:
      1. Open risks
      2. Mitigation progress
      3. High-risk areas
9. **Mobile Access and Field Reporting**
   1. Conduct risk assessments onsite using:
      1. Mobile app or web interface
      2. Offline mode support for remote sites
      3. Photo and file attachment support
10. **Compliance Integration**

* Align assessments with:
  + ISO 45001 standards
  + HASAWA 1996 requirements
* Automatically flag compliance-related risks

1. **Automated Alerts and Notifications**

* Reminders for:
  + Risk reassessments
  + Overdue mitigations
  + Review cycles and escalations

# Data Analytics and Reporting

1. **Interactive Dashboards**
   1. Real-time visualizations of:
      1. Safety KPIs (e.g., LTIFR, TRIR, incident frequency)
      2. Open vs resolved incidents
      3. Inspection and training completion rates
   2. Customizable widgets for role-based dashboards (e.g., safety officer vs executive view)
2. **Incident Trends and Root Cause Analysis**
   1. Automated trend tracking by:
      1. Time period (daily, monthly, quarterly)
      2. Department, location, or risk category
   2. Root cause pattern detection to identify recurring issues or systemic gaps
3. **Report Builder**
   1. User-friendly tools to generate:
      1. Ad-hoc reports
      2. Scheduled reports
      3. Compliance reports
   2. Filter by time, location, type, severity, or department
4. **Exportable Report Formats**
   1. Generate and export data in:
      1. PDF
      2. Excel (XLS/XLSX)
      3. CSV
      4. Optional print-friendly versions
5. **Scheduled and Automated Reporting**
   1. Set up recurring reports for:
      1. Executive summaries
      2. Daily/weekly safety dashboards
      3. Monthly compliance snapshots
   2. Automated email delivery or download links
6. **Custom Metrics and Calculations**
   1. Define and calculate:
      1. Risk scores
      2. Downtime due to incidents
      3. Corrective action completion rates
   2. Support formulas and logic tailored to WAF needs
7. **Comparative Analytics**
   1. Compare performance over:
      1. Multiple locations
      2. Historical periods
      3. Departments or teams
8. **Drill-Down and Filtering**
   1. Click-through from high-level summaries to:
      1. Individual incidents
      2. Risk assessments
      3. Employee-level training compliance
9. **Data Visualization Tools**
   1. Include charts such as:
      1. Bar, line, pie, and heatmaps
      2. Risk heatmaps
      3. Geographic or site-based safety maps
10. **Role-Based Access to Reports**

* Restrict report types and data views by:
  + User role
  + Department or clearance level

1. **Audit Logs for Reports**

* Track:
  + Who generated which report
  + When it was created and shared
  + Modifications or data exports

# Document Management System

1. **Centralized Document Repository**
   1. Secure, searchable storage for all OHS-related documents including:
      1. Policies and procedures (SOPs)
      2. Training materials
      3. Risk assessments
      4. Audit reports
      5. Incident records
2. **Version Control**
   1. Maintain version history for each document:
      1. Track changes and revision notes
      2. Restore previous versions
      3. Identify current “approved” or “in use” versions
3. **Access Control and Permissions**
   1. Restrict document access based on:
      1. User roles
      2. Departmental assignments
      3. Sensitivity levels (e.g., confidential reports)
   2. Support for view-only, edit, upload, and approve rights
4. **Document Approval Workflow**
   1. Routing of new/updated documents through:
      1. Review and approval steps
      2. Notifications for pending approvals
      3. Audit trail of approvals and comments
5. **External and Separate Storage Environment**
   1. Store documents separately from core application data to enhance:
      1. Security and backup
      2. Scalability
      3. Legal compliance
6. **Metadata Tagging and Search**
   1. Tag documents with:
      1. Category, date, author, department, tags
      2. Expiry date or review date
   2. Enable full-text search and filtered queries
7. **Automated Alerts and Expiry Tracking**
   1. Set expiration or review dates on:
      1. Safety policies
      2. Certifications
      3. Compliance documents
   2. System alerts for:
      1. Upcoming reviews
      2. Expired or outdated documents
8. **Mobile Accessibility**
   1. Access and retrieve documents via:
      1. Mobile web interface
      2. Mobile app (online/offline support for field operations)
9. **Audit Logging and Traceability**
   1. Record:
      1. Who accessed/downloaded each document
      2. When it was uploaded/modified/deleted
      3. Purpose of change (with optional comments)
10. **Integration with Other Modules**

* Documents should be accessible or linked from:
  + Incident records
  + Risk assessments
  + Training modules
  + Inspection reports

1. **Data Backup and Recovery**

* Regular, automated backups of the document repository
* Restore options for both individual files and bulk recovery in case of data loss

# Mobile Accessibility

1. **Mobile-Friendly Interface**
   1. The system must be accessible via:
      1. Mobile web browsers (responsive design)
      2. Dedicated mobile app (Android/iOS preferred)
   2. Optimized for various screen sizes and devices (phones, tablets)
2. **Core Functional Access**
   1. Mobile interface must support key OHS functions including:
      1. Incident reporting
      2. Risk assessments
      3. Inspections and audits
      4. Training access
      5. Document viewing and uploading
3. **Offline Mode Support**
   1. Ability to:
      1. Capture and save data without internet access
      2. Sync data automatically once reconnected
   2. Ideal for field use or remote locations with limited connectivity
4. **Photo and Media Capture**
   1. Direct access to device camera for:
      1. Attaching images/videos to incidents, inspections, risk assessments
      2. Annotating visual evidence when necessary
5. **Push Notifications**
   1. Support for:
      1. Incident alerts
      2. Upcoming inspections or training
      3. Assigned tasks or escalations
6. **Secure Access and Authentication**
   1. Enforce mobile login with:
      1. MFA (Multi-Factor Authentication)
      2. SSO or JWT integration with WAF IAM systems
      3. Role-based access even from mobile
7. **Real-Time Data Synchronization**
   1. Ensure any data entered via mobile reflects:
      1. Instantly in the centralized dashboard (when online)
      2. With queuing and retry mechanisms for unstable connections
8. **User Experience and Speed Optimization**
   1. Light UI design for faster loading
   2. Touch-friendly buttons and simplified workflows
   3. Reduced bandwidth usage for cost-effective mobile access
9. **Mobile Dashboard and Quick Actions**
   1. Condensed overview of:
      1. Recent incidents
      2. Pending actions
      3. Assigned tasks
   2. Shortcut buttons to report, inspect, assess, or upload
10. **Security Compliance**

* Protect mobile data with:
  + Encrypted local storage
  + Secure API communication (HTTPS, TLS)
  + Remote wipe or session termination if device is lost

# User Roles and Permissions

1. **Role-Based Access Control (RBAC)**
   1. Define user roles such as:
      1. System Administrator
      2. OHS Manager
      3. Inspector
      4. Department Supervisor
      5. General Employee
   2. Assign granular access rights per role:
      1. View, edit, create, approve, delete permissions by module
2. **Department/Designation Mapping**
   1. Map users to:
      1. Specific departments
      2. Job designations
      3. Work locations
   2. Filter access and visibility of data based on user's organizational context
3. **Custom Role Creation**
   1. Allow administrators to:
      1. Create custom roles
      2. Define specific permissions outside standard roles
      3. Clone or modify existing role templates
4. **Integration with WAF IAM Systems**
   1. Support integration with:
      1. JWT (JSON Web Tokens)
      2. SSO (Single Sign-On)
      3. LDAP/Active Directory for centralized authentication and user provisioning
5. **Permission-Based UI Rendering**
   1. Show/hide:
      1. Pages, modules, actions, or buttons based on user’s role and permissions
   2. Prevent unauthorized actions even via direct URL access
6. **Approval Workflows Based on Role**
   1. Assign approver rights only to authorized roles for:
      1. Incident approvals
      2. Risk assessments
      3. Training and compliance validations
7. **Audit Trail for Role Changes**
   1. Log all:
      1. Role assignments
      2. Permission changes
      3. Login attempts and security actions
8. **Multi-Level Access Structure**
   1. Support for:
      1. Hierarchical permission models
      2. Delegation of authority (e.g., temporary access for leave cover)
9. **User Group Management**
   1. Group users by:
      1. Region, unit, or operational role
      2. Apply group-level permissions and reports
10. **Mobile Access Controls**

* Ensure mobile users follow the same role restrictions:
  + Data access and task execution based on user profile
  + Secure token-based authentication for mobile sessions

# System Integration

1. **Integration with Existing HR Systems**
   1. Seamless data exchange with WAF’s HR platform for:
      1. Employee records
      2. Departmental structure
      3. Role assignments and job designations
   2. Auto-sync for new hires, terminations, and transfers
2. **Integration with ICT Systems**
   1. Link with ICT systems for:
      1. Authentication (e.g., LDAP, SSO, JWT)
      2. User provisioning and permissions
      3. Infrastructure monitoring/logging where needed
3. **Secure RESTful API Support**
   1. Provide robust APIs for:
      1. Data import/export
      2. Real-time data exchange with third-party systems
      3. Custom application integration (e.g., reporting tools, dashboards)
4. **Bulk Data Import and Export**
   1. Tools to handle:
      1. Initial data migration (CSV, Excel, XML formats)
      2. Ongoing bulk updates (e.g., audit history, risk logs)
   2. Support for data exports for backup, analytics, or compliance
5. **Webhook and Event-Based Integration**
   1. Trigger external actions when specific events occur, such as:
      1. New incident logged
      2. Training completion
      3. Risk reassessment required
6. **Modular Integration Options**
   1. Enable selective integration of:
      1. Incident data into BI tools
      2. Compliance logs with regulatory platforms
      3. Training completion into learning management systems (LMS)
7. **Data Mapping and Transformation**
   1. Handle:
      1. Field-level mapping across systems
      2. Data normalization between external formats and internal models
   2. Error handling and reconciliation for failed syncs
8. **Authentication Federation**
   1. Use existing WAF authentication methods for:
      1. Single sign-on (SSO)
      2. Identity federation via LDAP/Active Directory or other IAM systems
9. **Audit and Logging for Integration Activity**
   1. Maintain logs of:
      1. API calls and sync attempts
      2. Data exchanged between systems
      3. Any integration failures or retries
10. **Compliance with Data Standards**

* Ensure integrations follow:
  + Data privacy laws (e.g., GDPR, HIPAA)
  + Secure transport protocols (HTTPS, TLS)
  + Encrypted token-based access for APIs