

Functional Specification: safetyfirst.help - Construction H&S Compliance Platform

1. Introduction

1.1 Purpose of the Website

The "safetyfirst.help" platform is designed to automate and streamline the complex processes involved in compiling, managing, and tracking essential occupational health and safety (OHS) documentation for construction projects within South Africa. Its core objective is to facilitate compliance with the governing legislative framework, primarily the Occupational Health and Safety Act No. 85 of 1993 (OHSA) ¹, the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 (COIDA) ³, and the specific requirements of the Construction Regulations, 2014.⁵

The platform aims to simplify the creation and maintenance of critical documents such as Health and Safety Specifications, Health and Safety Plans, Health and Safety Files, Baseline Risk Assessments, COIDA registration and compliance records (including Letters of Good Standing), Department of Employment and Labour (DoL) notifications and permit applications, statutory appointments, and mandatory agreements. By providing structured workflows and document templates, "safetyfirst.help" seeks to reduce the administrative burden and potential for non-compliance for all key stakeholders involved in construction projects, namely Clients, Contractors (both Principal Contractors and Sub-contractors), and registered Health & Safety Professionals.

1.2 Objective of this Specification

This document serves as the formal functional specification for the "safetyfirst.help" website. Its objective is to provide the development team with a comprehensive, technically detailed, and legally grounded blueprint for building the platform. It defines the distinct user roles, outlines the required system features and functionalities, specifies necessary data structures and management requirements, and addresses key non-functional aspects such as security and usability. This specification ensures that the developed platform accurately reflects the duties, responsibilities, and interactions mandated by South African construction OHS law, ultimately delivering a robust and compliant software solution.

1.3 Scope of this Specification

The scope of this specification encompasses the functional requirements for the

"safetyfirst.help" platform, derived from a detailed analysis of the OHSA ¹, COIDA ⁷, the Construction Regulations 2014 ⁶, and the guidelines issued by the South African Council for the Project and Construction Management Professions (SACPCMP) regarding construction health and safety roles.⁹

It details the specific functionalities required for each primary user role: Client, Contractor (Principal and Sub-contractor), and H&S Professional (Agent, Manager, Officer). Core system functionalities covered include user management, project setup, document generation using legally compliant templates, document storage and version control, workflow management for approvals and notifications, risk assessment tools, appointment tracking, compliance status monitoring, and data handling procedures. While this document outlines the necessary functions and user interactions, it excludes detailed User Interface (UI) or User Experience (UX) design mockups, focusing instead on the operational logic and legal compliance aspects required for development.

2. Governing Legislative Framework & Key Definitions

2.1 Overview

The safe execution of construction work in South Africa is governed by a hierarchy of legislation. The Occupational Health and Safety Act 85 of 1993 (OHSA) establishes the fundamental duties of employers (Section 8) and employees (Section 14) to ensure a safe working environment.¹ It operates on the principle of "reasonably practicable," meaning measures must be taken proportionate to the risk.¹³ The Construction Regulations, 2014, promulgated under the OHSA, provide detailed, specific rules and procedures applicable *only* to construction work, significantly expanding on the general duties outlined in the Act.⁶ These regulations mandate a risk-based approach, requiring proactive identification and control of hazards throughout the project lifecycle.¹⁴

The Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA) establishes a system for compensating employees (or their dependents) for disablement or death caused by occupational injuries or diseases, funded through employer assessments.³ Compliance with COIDA, evidenced by a Letter of Good Standing, is a prerequisite for contractors undertaking construction work].

Finally, the South African Council for the Project and Construction Management Professions (SACPCMP), established under its own Act, governs the registration, conduct, and scope of work for specific construction health and safety professionals,

such as Agents (PrCHSA), Managers (CHSM), and Officers (CHSO), whose appointments are mandated or referenced within the Construction Regulations.⁹ The "safetyfirst.help" platform must operate within this interconnected legal framework, accurately reflecting the definitions, duties, and documentation requirements stipulated by each component.

2.2 Key Definitions (Construction Regulations 2014)

Precise understanding and application of definitions from the Construction Regulations, 2014 are critical for the platform's logic and compliance. Key terms include:

- **Client:** Defined as "any person for whom construction work is performed".⁶ This definition is fundamental as the Client holds the initial responsibility for initiating the health and safety process for a project, including preparing the baseline risk assessment and health and safety specification as mandated by Regulation 5.
- **Contractor:** Defined as "an employer who performs construction work".⁶ This is a broad definition encompassing any entity or individual undertaking construction activities, including principal contractors, sub-contractors, and even self-employed persons providing labour.²⁰ The platform must accommodate this broad scope.
- **Principal Contractor (PC):** Defined as "an employer appointed by the client to perform construction work" ⁶ (Note: 2014 Regs definition is "employer appointed by the client to perform construction work and who is specified in the construction contract as the principal contractor" - slight nuance). The client *must* appoint a PC in writing]. The PC assumes overall control and specific management duties for health and safety on the site as outlined in Regulation 7 and Regulation 8.⁶
- **Designer:** Defined as "a competent person who (i) prepares a design; (ii) checks and approves a design..." including roles like architects, engineers, surveyors, and even contractors involved in design-build projects.⁶ Designers have specific legal duties under Regulation 6 to incorporate safety considerations into the design phase.
- **Competent Person:** Defined as a person possessing the required knowledge, training, experience, and, where applicable, registered qualifications for a specific task, and who is familiar with the OHSA and its regulations.⁸ This definition forms the basis for all statutory appointments required under the regulations. It implies that proof of competency (certificates, registration) must be verifiable and maintained, a key function for the platform. While the main OHSA does not define this term ¹, the Construction Regulations provide this crucial definition.

Furthermore, specific roles like Construction Manager, Supervisor, Risk Assessor, and Fall Protection Planner have additional, more detailed competency requirements specified within the regulations ⁶, which the platform must accommodate.

- **Health and Safety Specification:** Defined as "a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work".⁶ This is the Client's primary directive outlining the H&S standards and requirements for the project, mandated by Regulation 5(1)(b). It must be based on the Baseline Risk Assessment] and provided to designers and tendering contractors].
- **Health and Safety Plan:** Defined as "a site, activity or project specific documented plan in accordance with the client's health and safety specification".⁶ This is the Contractor's (specifically the PC's) documented response detailing *how* they will implement the requirements of the H&S Specification and manage safety on site, as required by Regulation 7(1)(a). Crucially, this plan requires formal discussion, negotiation, and final approval by the Client (or their Agent) before work can commence].
- **Health and Safety File:** Defined as "a file, or other record containing the information in writing required by these Regulations".⁶ This is the central, dynamic, and auditable repository of all mandatory H&S documentation for the project, required by Regulation 7(1)(b). It must be kept on site, readily available for inspection, and continuously updated throughout the project.²⁷
- **Baseline Risk Assessment (BRA):** While the user query specification provided a definition, the regulations mandate the Client to "prepare a baseline risk assessment for an intended construction work project"]. This assessment forms the foundation for the H&S Specification]. It should identify inherent site hazards and foreseeable risks associated with the planned construction activities.³⁰
- **Hazard Identification and Risk Assessment (HIRA):** These are the ongoing, task-specific risk assessments conducted by the Contractor *during* the construction phase, as required by Regulation 9.³¹ They differ from the Client's initial BRA, focusing on the specific hazards encountered as work progresses.³¹
- **Construction Work:** Defined broadly to encompass the erection, alteration, repair, demolition of buildings and structures, as well as civil engineering works like bridges, roads, excavations, etc..⁸ This definition determines the applicability of the Construction Regulations.
- **Construction Work Permit:** Defined as "a document issued in terms of regulation 3".¹⁹ Required for specific high-risk projects based on thresholds related to duration, person-days, contract value, or specific high-risk activities.⁶ The Client is responsible for applying for this permit from the DoL. Note that

proposed 2024 draft regulations suggest changes to these thresholds ¹⁹, necessitating adaptability in the platform.

- **Agent:** Defined as "a competent person who acts as a representative for a client".¹⁷ When a construction work permit is required, the Client *must* appoint an Agent in writing]. This Agent must be registered with an approved statutory body, which in practice means a Professional Construction Health and Safety Agent (PrCHSA) registered with SACPCMP]. The Agent assumes the Client's duties under the regulations "as far as reasonably practicable"]. Even for projects only requiring notification, the Client *may* appoint an Agent].

2.3 Table 1: Key Legislative References and Compliance Documents

This table provides a quick reference linking key compliance outputs managed by the "safetyfirst.help" platform to their legislative basis and responsible parties.

Understanding these connections is vital for ensuring the platform accurately reflects legal mandates.

Document/Requirement	Primary Regulation/Act Section	Responsible Party (Initiator/Holder)	Key Purpose
Baseline Risk Assessment	CR 5(1)(a), CR 5(3)	Client / Agent	Initial identification and assessment of project hazards; foundation for H&S Specification.
H&S Specification	CR 5(1)(b), CR 5(2)	Client / Agent	Client's directive outlining project-specific H&S requirements, based on BRA.
Designer H&S Report	CR 6(1)(c)	Designer	Provides client with design-related H&S info affecting pricing, geotechnical data, load capacity.
Construction Work Permit	CR 3	Client / Agent	DoL authorization required for high-risk projects before

			commencement. Application via Annexure 2.
Notification of Const. Work	CR 4	Contractor (PC)	DoL notification required for specific works (excavation, height risk, demo, explosives) via Annexure 1.
Letter of Good Standing	COIDA Sec 80, 82, 86	Contractor (PC & Sub)	Proof of registration and up-to-date payments with Compensation Fund/Insurer. Verified by Client.
Section 37(2) Agreement	OHSA Sec 37(2)	Client & PC; PC & Sub	Written agreement outlining arrangements for mandatary's OHS compliance to mitigate principal's liability.
H&S Plan	CR 7(1)(a)	Contractor (PC & Sub)	Contractor's documented plan detailing how H&S Specification requirements will be met. Requires Client approval.
H&S File	CR 7(1)(b)	Contractor (PC & Sub)	Central on-site repository for all required H&S documentation; auditable compliance record.
Task-Specific HIRA	CR 9	Contractor (PC & Sub)	Ongoing risk assessment for specific construction

			tasks as work progresses.
Statutory Appointments	CR 8, CR 9, CR 10, CR 13 etc.	Contractor (PC & Sub)	Formal written appointments of competent persons for specific supervisory and technical roles.
Medical Cert. of Fitness	CR 7(1)(g)	Contractor (PC & Sub)	Proof (Annexure 3) that employees are medically fit for the specific construction work.
Incident Reporting	OHSA Sec 24, COIDA	Contractor (PC & Sub)	Reporting serious incidents to DoL; reporting injuries/diseases for COIDA claims.
Audits	CR 5(1)(o), CR 7(1)(c)(v)	Client / Agent / PC	Periodic verification of compliance with H&S Plan and regulations (at least monthly).

3. User Roles, Permissions, and Workflow

3.1 Definition of Roles

The platform must support distinct user roles reflecting the key players in a construction project, each with specific responsibilities mandated by law:

- Client:** The entity commissioning the construction work.⁶ This role is responsible for initiating the H&S process by ensuring the preparation of the BRA and H&S Specification, appointing a competent Principal Contractor, ensuring the PC is COIDA compliant, approving the PC's H&S Plan, and ensuring periodic audits are conducted. The Client may appoint an Agent (PrCHSA) to manage these duties.
- Principal Contractor (PC):** The employer appointed in writing by the Client to manage the overall construction site]. This role is responsible for developing and implementing the H&S Plan based on the Client's Specification, establishing and

maintaining the H&S File on site, appointing competent management and supervision (Construction Manager, Supervisors, CHSO), managing sub-contractors' H&S compliance, conducting HIRAs, and ensuring overall site safety.⁶

- **Contractor (Sub-contractor):** An employer appointed by the PC or another contractor to perform specific construction work]. This role must develop its own H&S Plan aligned with the PC's requirements, contribute to and maintain relevant sections of the H&S File, comply with PC directives, ensure their own COIDA compliance, and manage the safety of their specific operations.²⁰
- **H&S Professional (Agent/Manager/Officer):** These roles provide specialized H&S expertise and require specific competencies, often including SACPCMP registration.
 - **Agent (PrCHSA):** Appointed in writing by the Client, typically for projects requiring a permit]. Acts as the Client's representative, managing H&S compliance on their behalf.³⁶ Must be registered with SACPCMP as PrCHSA].
 - **Manager (CHSM):** Appointed by the Contractor (typically PC) to manage the planning and implementation of H&S systems.¹² Requires SACPCMP registration as CHSM.
 - **Officer (CHSO):** Appointed by the Contractor (PC) to assist site management with the practical implementation and monitoring of H&S systems on site]. Must be registered with SACPCMP as CHSO]. The appointment (full-time or part-time) depends on project size/risk and consultation with the Client].

3.2 Permissions & Access Control

The platform must implement a robust role-based access control system. Permissions to create, read, update, delete (CRUD), and approve documents or project data must be strictly enforced based on the user's role and their association with a specific project. Examples:

- A Client can create a project and approve the PC's H&S Plan.
- An Agent (PrCHSA) appointed by the Client inherits the Client's permissions for managing H&S aspects of that project.
- A PC can create their H&S Plan, manage their H&S File, appoint supervisors/CHSOs within the system, and view/approve compliance documents submitted by their appointed Sub-contractors.
- A Sub-contractor can create their own H&S Plan (for PC approval), manage their section of the H&S File, and view the Client's H&S Specification (as provided by the PC).
- A CHSO assigned to a PC can update inspection registers and HIRAs within the

PC's project file but cannot approve the main H&S Plan.

3.3 High-Level Workflow

The platform should guide users through the legally mandated sequence of H&S activities. A typical workflow involves:

1. **Initiation:** Client creates a new project profile.
2. **Planning (Client):** Client (or appointed Agent) prepares the Baseline Risk Assessment (BRA) and the Health & Safety Specification.
3. **Appointment (Client):** Client appoints the Principal Contractor (PC) in writing, verifying competency, resources, and COIDA status. Client and PC sign Section 37(2) Agreement.
4. **Planning (PC):** PC submits initial compliance documents (LoG). PC prepares the site-specific Health & Safety Plan based on the Client's Specification.
5. **Approval (Client):** Client (or Agent) reviews, negotiates, and formally approves the PC's H&S Plan. *Work cannot commence before this approval.* This dependency is critical; the system should ideally prevent progression or flag non-compliance if work starts before plan approval, reflecting the legal requirement of Regulation 5(1)(l).²⁶
6. **Notification/Permit:** PC notifies DoL (Annexure 1) if required. Client/Agent applies for DoL Permit (Annexure 2) if required. Permit must be displayed and kept in H&S File.
7. **Execution & Management (PC):** PC establishes the H&S File on site. PC makes statutory appointments (Construction Manager, Supervisors, CHSO, etc.). PC manages sub-contractor appointments, plans, and compliance.
8. **Ongoing Compliance (All Contractors):** Conduct task-specific HIRAs. Perform regular inspections (scaffolding, excavation, etc.). Conduct site inductions and toolbox talks. Maintain training and medical records. Manage incidents and report as required.
9. **Monitoring & Auditing:** Client/Agent conducts periodic audits (at least monthly). PC audits sub-contractors. Findings are tracked and closed out.
10. **Closeout:** PC finalizes and hands over the consolidated H&S File to the Client.

Automating and enforcing this sequence where feasible is a core value proposition of the platform, preventing procedural non-compliance which can arise from misunderstanding the dependencies between these legally mandated steps.

3.4 Table 2: User Role Functionality Matrix

This matrix clarifies which user role is primarily responsible for performing key

functions within the "safetyfirst.help" system. (C=Create, R=Read, U=Update, A=Approve).

Functionality	Client	Agent (PrCHSA)	PC	Contract or (Sub)	CHSM	CHSO
Create Project	C	C (if delegated)	R	R	R	R
Compile BRA	C/U	C/U	R	R	R	R
Compile H&S Specificati on	C/U	C/U	R	R	R	R
Appoint PC	C/U	C/U (if delegated)	N/A	N/A	N/A	N/A
Verify PC Competen ce/Resour ces	C/U	C/U (if delegated)	N/A	N/A	N/A	N/A
Verify PC COIDA Status	C/U	C/U (if delegated)	N/A	N/A	N/A	N/A
Sign Sec 37(2) Agreemen t (Client)	C/U	C/U (if delegated)	C/U	N/A	N/A	N/A
Request Permit (Annex 2)	C/U	C/U	R	R	R	R
Submit Notificatio n (Annex	R	R	C/U	C/U (if PC)	R	R

1)						
Compile H&S Plan	A	A	C/U	C/U	C/U	R
Manage H&S File	R	R/U (if delegated)	C/U	C/U (own section)	C/U	C/U
Conduct Task-Specific HIRA	R	R	C/U	C/U	C/U	C/U
Make Statutory Appointments	R	R	C/U	C/U (own staff)	C/U	R
Manage Sub-contractor Compliance	R	R	C/U/A	N/A	R	R
Manage Own COIDA/Log	N/A	N/A	C/U	C/U	R	R
Manage Training/Medical Records	R	R	C/U	C/U	C/U	C/U
Manage Incident Reports	R	R	C/U	C/U	C/U	C/U
Manage Inspection Registers	R	R	C/U	C/U	C/U	C/U

Conduct Client/Agent Audit	C/U	C/U	R	R	R	R
Conduct PC Audit (Internal/Sub)	R	R	C/U	R	C/U	C/U
Handover H&S File	R	R	C/U	N/A	R	R

This matrix serves as a critical guide for developers, ensuring the platform assigns capabilities correctly based on the distinct legal responsibilities and operational interactions defined in the Construction Regulations.

4. Functional Requirements: Client Module

This module provides the tools for Clients (or their appointed Agents) to fulfill their statutory duties under Regulation 5 and related legislation.

4.1 Project Setup & Management

- **Functionality:** Users with Client/Agent roles must be able to initiate new construction projects within the system.
- **Data Fields:** Project Name/Number, Client Entity Details, Project Location (Address/Coordinates), Brief Scope of Work Description, Estimated Start and End Dates, Estimated Project Value (relevant for permit thresholds), Key Client Contact Person.
- **Interface:** A dashboard providing an overview of all active projects associated with the Client account. This dashboard should display key information such as Project Name, PC Name, Current Status (e.g., Planning, Execution, Closeout), upcoming deadlines (e.g., audit due, LoG expiry), and high-level compliance indicators (e.g., H&S Plan Approved Y/N, Permit Obtained Y/N).

4.2 Baseline Risk Assessment (BRA) Compilation (Reg 5(1)(a), 5(3))

- **Functionality:** A guided workflow or structured template to assist the Client/Agent in preparing the mandatory BRA.⁶
- **Process:**
 - Input site-specific details: Location characteristics, environmental factors, existing structures or services, known ground conditions, community

context.³⁰

- Identify inherent hazards present *before* construction begins (e.g., asbestos in existing building, overhead power lines, contaminated land, public access issues).³⁰
- Identify foreseeable hazards based on the *intended* scope of construction work (e.g., excavation risks if foundations are planned, working at height risks if a multi-storey structure is intended).
- Implement a risk rating methodology. A standard approach (e.g., Severity x Likelihood or Severity x Frequency x Exposure ¹⁴) should be provided as a default, but allow for customization if required by the client's internal standards.
- Document proposed high-level control strategies or considerations for identified significant risks. These inform the H&S Specification.
- Ability to link or embed the completed BRA within the corresponding H&S Specification document.
- **Iterative Process Management:** The system should support the distinction between the initial client BRA and a potentially revised BRA incorporating designer feedback.³⁰ This could involve a status flag (Draft/Final) or versioning, allowing the draft BRA/Spec to be shared with the Designer, and their risk-related input (from Reg 6 duties) to be incorporated before finalizing the BRA and Spec issued to the PC. This reflects the collaborative nature of risk management envisaged by the regulations and best practice guidelines.³⁰ Facilitating this interaction ensures that design-stage risk mitigation is captured before the contractor pricing and planning phase.

4.3 Health & Safety Specification Generation (Reg 5(1)(b))

- **Functionality:** A template-based document generation tool to create the site-specific H&S Specification.⁶
- **Content:** The template should include sections covering, at minimum:
 - Project Scope and Description.
 - Reference to the Baseline Risk Assessment (link/attachment).
 - Client's H&S Policy Statement (optional upload/input).
 - Site-Specific Rules and Emergency Procedures.
 - Known Site Hazards and Client-Mandated Control Measures (drawn from BRA).
 - Minimum requirements for Contractor's H&S Plan content.
 - Requirements for specific high-risk activities anticipated (e.g., excavation, working at height, demolition).
 - List of required statutory appointments and competencies.

- Requirements for COIDA compliance (LoG submission).
- Requirements for H&S File content and structure.
- Audit frequency and requirements.
- Incident reporting procedures.
- Requirements for PPE, signage, welfare facilities.
- Interface requirements with existing operations (if applicable).
- **Features:** Ability to customize the template, import data from the BRA, attach supporting documents (e.g., site plans, geotechnical reports), maintain version control, and formally issue the specification to designers and contractors.

4.4 Designer & Principal Contractor Appointment Management (Reg 5(1)(k), 5(1)(h))

- **Functionality:** A dedicated section within each project to record and manage the appointment of the Designer(s) and the Principal Contractor(s).
- **Process:**
 - Record appointment details: Appointed Company Name, Contact Person, Contact Details, Date of Appointment.
 - Upload signed appointment letters as proof.
 - **Due Diligence Documentation (PC):** Implement checklists or specific data fields to prompt and record the Client's verification steps for the PC, as required by Reg 5(1)(g), (h), and (j):
 - *Competency & Resources Check*]: Record *how* competency was verified (e.g., "Checked SACPCMP registration for key personnel", "Reviewed portfolio of similar projects", "Interviewed proposed Construction Manager"). Record *how* resources were verified (e.g., "Reviewed list of owned plant", "Confirmed availability of key personnel"). This is crucial because Reg 5(1)(h) imposes a duty on the client to *ensure* competence, not just appoint. Documenting the verification process provides an essential audit trail demonstrating the client took reasonable steps.
 - *H&S Cost Provision Check*]: Record confirmation that the PC's tender included adequate financial provision for implementing the H&S Specification (e.g., "Confirmed pricing included line items for CHSO, PPE, specific controls outlined in Spec").
 - *COIDA Compliance Check*]: Link to the PC's uploaded Letter of Good Standing within the system, confirming registration and good standing *before* work commences.

4.5 Permit Application & Notification Management (Reg 3, Reg 4)

- **Functionality:** Assist the Client/Agent in determining the need for and managing

DoL submissions.

- **Process:**

- **Needs Assessment:** Based on project parameters entered during setup (duration, estimated person-days, value, height, specific activities like excavation, demolition, height risk, explosives), the system should advise whether a Construction Work Permit ⁶ or Notification of Construction Work ⁶ is likely required. Thresholds (e.g., >180 days / >1800 person-days / CIDB Grade 7+ / >2 storeys for permit under draft 2024 regs ³⁵) must be configurable to adapt to legislative changes.
- **Form Generation:** Generate pre-populated Annexure 1 (Notification) ⁶ or Annexure 2 (Permit Application) ⁶ forms using project and stakeholder data already in the system.
- **Submission Tracking:** Allow users to record the date of submission to the relevant DoL Provincial Director.
- **Permit Management:** Allow upload of the issued Construction Work Permit. The system should link the permit to the project and ensure it's accessible for inclusion in the H&S File as required by Reg 3(6).²⁷ Track permit validity dates if applicable.

4.6 Mandatory Agreement Management (OHSA Sec 37(2))

- **Functionality:** Facilitate the creation and management of the Section 37(2) agreement between the Client and the PC.
- **Features:**
 - Provide a standard template for the Section 37(2) agreement, outlining the arrangements and procedures for the PC's OHS compliance.⁴⁰
 - Allow customization of the template if needed.
 - Record the date the agreement was signed by both parties.
 - Upload the executed agreement document.
- **Contextual Explanation:** The system should briefly explain the purpose of this agreement – that it is a mechanism under OHSA Section 37(2) intended to help the Client demonstrate they have taken reasonable steps regarding the PC's compliance, potentially mitigating the Client's vicarious liability for the PC's actions or omissions.⁴⁰ This clarifies its importance as a risk management tool for the Client.

4.7 Contractor H&S Plan Review & Approval (Reg 5(1)(I))

- **Functionality:** An interface for the Client/Agent to receive, review, and formally approve or reject the H&S Plan submitted by the PC.
- **Process:**

- Receive notification when a PC submits their H&S Plan for the project.
- Display the submitted plan alongside the Client's H&S Specification for comparison.
- Provide a review checklist based on the requirements of the H&S Specification and the minimum content mandated by Regulation 7.⁶
- Allow the Client/Agent to add comments or request revisions.
- Implement formal "Approve" or "Reject" actions, timestamped and recorded.²⁶
- Maintain a history of submissions and approval status.
- The system should clearly indicate the approval status, as work cannot legally commence without this approval.

4.8 Audit Scheduling & Management (Reg 5(1)(o))

- **Functionality:** Tools for scheduling, managing, and tracking the periodic H&S audits mandated by Regulation 5(1)(o).
- **Features:**
 - Calendar or scheduling tool to plan audits (frequency defaults to monthly as per Reg 5(1)(o) ³⁴, but allow adjustment based on mutual agreement).
 - Ability to assign auditors (selecting from registered H&S Professionals within the system or recording external auditor details).
 - Interface to upload completed audit reports.
 - Track audit completion dates and key findings/non-conformances.
 - Automated reminder system for upcoming audits.
 - Functionality to track that the audit report was provided to the PC within the required 7 days].

4.9 Agent (PrCHSA) Appointment & Management (Reg 5(5), 5(6), 5(7))

- **Functionality:** Allow the Client to formally record the appointment of a Construction Health and Safety Agent (PrCHSA).
- **Process:**
 - Record Agent's details (Name, Company, Contact Info, SACPCMP Registration Number).
 - Upload the written appointment letter.³⁴
 - **Verification:** Include a field for the SACPCMP PrCHSA registration number.¹¹ The system could potentially include a link to the SACPCMP online register for verification (if publicly available and feasible) or require upload of proof of registration. This helps the Client fulfill their duty to appoint a *competent* and *registered* Agent as required by Reg 5(7)(b).³⁴
 - **Delegation:** Provide a mechanism within the platform's permission system for the Client to delegate specific H&S management functions (e.g., H&S Plan

approval, audit management) to the appointed Agent for that specific project.

5. Functional Requirements: Contractor Module (Principal & Sub-contractor)

This module caters to both Principal Contractors (PCs) and Sub-contractors, providing tools to manage their respective compliance obligations under Regulations 7, 8, 9 and others. PCs will have additional functionalities related to managing sub-contractors.

5.1 Company Profile & Compliance Documentation

- **Functionality:** A central area for each contractor company (PC or Sub) to manage their core details and essential compliance documents.
- **Data Fields & Document Management:**
 - Company Name, Physical Address, Postal Address, Registration Number (CIPC), Contact Person(s) for OHS matters.
 - **COIDA Compliance:**
 - Field for COIDA Registration Number.
 - Upload current COIDA Registration Certificate.⁷
 - Upload current, valid Letter of Good Standing (LoG) from the Compensation Fund or a licensed mutual association]. The system must track the expiry date (currently set annually, e.g., 31 May ⁴⁸) and send automated reminders for renewal well in advance.⁴⁶ Failure to maintain a valid LoG prevents legal site access/work.
 - Field to track the status/date of the annual Return of Earnings (ROE) submission.⁷ Prompt users when the submission window opens (typically March/April).
 - **Other Documents:**
 - Upload valid Tax Clearance Certificate.²⁰
 - Upload proof of Public Liability Insurance.²⁹
 - Upload the company's overarching Occupational Health and Safety Policy document.²⁰

5.2 Health & Safety Plan Compilation (Reg 7(1)(a))

- **Functionality:** A structured tool for contractors to develop their site-specific H&S Plan.⁶
- **Process:**
 - The system should present the Client's H&S Specification for the specific project as the basis for the plan.
 - Provide a template reflecting the minimum content requirements of Regulation 7(1)(a), including sections for:

- Contractor's OHS Policy (link to company profile).
- Organizational structure (roles, responsibilities for H&S).
- Planned H&S resources (personnel, equipment).
- Risk Assessment approach (linking to BRA and planned HIRAs).
- Safe Work Procedures (SWPs) - either detailed within or referenced/attached.
- Emergency preparedness and response procedures.
- Fall Protection Plan (if applicable, see Reg 10).
- Traffic Management Plan (if applicable).
- Medical surveillance arrangements.
- Induction and training plan.
- Communication protocols.
- Monitoring, inspection, and auditing schedules.
- Incident management procedures.
- List of intended statutory appointments.
- (Refer also to sample index in ²⁶).
- Allow attachment of supporting documents (e.g., specific SWPs, Fall Protection Plan, Emergency Contact List).
- Implement a workflow for submitting the draft plan to the Client (if PC) or the PC (if Sub-contractor) for review and approval.
- Maintain version control for submitted and approved plans.

5.3 Health & Safety File Management (Reg 7(1)(b))

- **Functionality:** A digital structure representing the mandatory H&S File, to be maintained throughout the project.⁶
- **Structure & Content:** Organize the file logically with sections for all documentation required by the Act and Regulations. This must include, but is not limited to:
 - Copy of Client's H&S Specification.
 - Approved Contractor H&S Plan.
 - Baseline Risk Assessment (from Client/Agent).
 - All conducted Task-Specific HIRAs.
 - Safe Work Procedures (SWPs).
 - Statutory Appointment Letters (with proof of competency).
 - Training Records: Induction register, Toolbox Talk records, specific competency training certs.²⁰
 - Medical Certificates of Fitness (Annexure 3) for all site employees].
 - Incident/Accident Reports (using Annexure 1 format where applicable for reporting to DoL) and Investigation Records.²⁰

- Inspection Registers (e.g., Scaffolding, Excavation, Fall Protection Equipment, Lifting Machines/Tackle, Electrical Tools, PPE issue, First Aid Box contents, Fire Equipment).²⁰
- Audit Reports (Client/Agent audits and internal/PC audits).
- Copy of valid Letter of Good Standing (COIDA).
- Copy of Construction Work Permit (if applicable).
- Copy of DoL Notification (if applicable).
- Material Safety Data Sheets (MSDS) for hazardous substances used.²⁰
- Emergency Contact Information and Procedures.
- Minutes of H&S Committee Meetings (if applicable, OHSA Sec 19).
- List of Sub-contractors (for PC) and relevant agreements/documents.
- **Features:**
 - Allow easy uploading and categorization of documents into the correct sections.
 - Enable PCs to view/manage sections contributed by their appointed sub-contractors.
 - Provide functionality for formal handover of the consolidated file (or relevant sections) to the Client upon project completion].
 - Ensure the file structure facilitates easy access for on-site inspection (e.g., via mobile view or printable reports/sections) and auditing. The file must be a living record reflecting current site status and compliance activities, not merely a static collection of initial documents. This dynamic nature is essential for meeting the continuous monitoring and availability requirements of the regulations.

5.4 Hazard Identification & Risk Assessment (HIRA) Management (Reg 9)

- **Functionality:** Tools for contractors to conduct and document ongoing, task-specific HIRAs as work progresses.⁶
- **Process:**
 - Interface for identifying hazards associated with specific construction tasks or work areas (considering categories like Physical, Chemical, Biological, Ergonomic, Psychological ³¹).
 - Apply a risk evaluation methodology (consistent with BRA or project standard) to assess the identified hazards.
 - Document control measures developed to mitigate risks, following the hierarchy of controls (Elimination, Substitution, Engineering, Administrative, PPE).
 - Link each HIRA to the relevant task, activity, or location within the project.
 - **Review Management:** Track the review status of each HIRA. Regulation 9(3)

mandates review "as and when changes occur... or when further hazards or risks are identified".⁶ While no fixed maximum period is set in the regulation, the system should facilitate these event-triggered reviews and could optionally allow users to set a maximum internal review period (e.g., 12 months³⁵) as a best practice prompt.

- **Competency:** Record the appointment of the competent Risk Assessor(s)]. Include fields to document proof of competency (relevant qualification/approved course + minimum 2 years relevant experience, as per detailed competency definition found in ⁶, which elaborates on the general 'competent person' definition).

5.5 Statutory Appointment Management (Reg 8, Task-Specific)

- **Functionality:** A centralized system for creating, managing, and storing all statutory appointments required for the project.
- **Features:**
 - Provide legally compliant templates for appointment letters for various roles mandated by the OHSa and Construction Regulations (e.g., Construction Manager, Construction Supervisor, Construction H&S Officer, Risk Assessor, Fall Protection Planner, Excavation Supervisor, Scaffolding Supervisor, Lifting Machinery Inspector, First Aider, H&S Representative, etc.).²⁰
 - Fields to capture Appointee Name, ID Number, Role Appointed To, Date of Appointment, Scope of Duties/Responsibilities, Appointer Name/Signature.
 - Crucially, include fields/uploads for **Proof of Competency:**
 - General Competency: Certificates of training, qualifications, documented experience relevant to the appointment.
 - **SACPCMP Registration (Mandatory where specified):**
 - *Construction H&S Officer (CHSO):* Must be registered with SACPCMP]. System must capture SACPCMP registration number and category (CHSO).¹⁰
 - *Construction H&S Agent (PrCHSA):* Appointed by Client, requires PrCHSA registration]. (Managed in Client module but relevant here if PC needs to verify Agent's credentials).
 - *Construction H&S Manager (CHSM):* While not explicitly mandated for appointment in Reg 8 of the 2014 regulations, SACPCMP registers this category ¹², and a PC might appoint one. System should allow recording CHSM registration if applicable.
 - **Specific Competencies ⁶:**
 - *Construction Manager:* Competent Person. While ⁶ suggests 5 years experience and registration, the 2014 Reg 8(1) text only requires a

"competent person". The system should capture evidence supporting the "competent person" status.

- *Construction Supervisor*: Competent Person appointed by Construction Manager. ⁶ suggests 3 years experience + relevant qualification. System should capture supporting evidence.
- *Risk Assessor*: Relevant qualification/course + 2 years experience [⁶ detail for Reg 9(1)].
- *Fall Protection Planner*: Relevant qualification/course + 2 years experience [⁶ detail for Reg 10(1)].
 - Link appointment records to the relevant section of the H&S File.
- **Table 3: Statutory Appointments Summary (Contractor Focus)** This table provides contractors with a clear checklist of key appointments they are typically responsible for making.

Role	Governing Regulation	Required Competency (Summary)	SACPCMP Reg Required?	Appointed By
Construction Manager	CR 8(1)	Competent Person (Knowledge, Training, Experience, Familiarity)	No (by Reg 8(1))	PC
Construction Supervisor	CR 8(2)	Competent Person (Appointed by Const. Manager)	No	Const. Mgr
Construction H&S Officer	CR 8(5)	Competent Person + SACPCMP Registration	Yes (CHSO)	PC/Contractor
Risk Assessor	CR 9(1)	Competent Person ⁶	No	PC/Contractor
Fall Protection Planner	CR 10(1)(a)	Competent Person ⁶	No	PC/Contractor

Excavation Supervisor	CR 13(1)(a)	Competent Person	No	PC/Contractor
Scaffolding Supervisor	CR 16(1)	Competent Person	No	PC/Contractor
Suspended Platf. Superv.	CR 17(1)	Competent Person	No	PC/Contractor
Material Hoist Inspector	CR 19(8)(a)	Competent Person	No	PC/Contractor
Lifting Machine Operator	DMR 18(11)	Competent Person (Specific training/certification implied)	No	PC/Contractor
First Aider	GSR 3	Competent Person (Valid First Aid Cert from approved provider)	No	PC/Contractor
H&S Representative	OHSA Sec 17	Employee nominated/elected (Training required)	No	Employer

Note: "Competent Person" implies documented proof of knowledge, training, experience, and familiarity with legislation. Specific requirements may vary based on the task complexity.

5.6 Sub-contractor Management & Compliance Oversight (Reg 7(1)(c), 7(3))

- **Functionality:** Specific tools for PCs to manage their appointed sub-contractors' H&S compliance.
- **Process:**
 - Maintain a register of all appointed sub-contractors for the project.
 - Interface to request and receive required compliance documents from

sub-contractors (e.g., their approved H&S Plan, valid LoG, key appointments, Section 37(2) agreement signed with the PC).

- Mechanism for the PC to formally provide relevant sections of the Client's H&S Specification to each sub-contractor].
- Workflow for the PC to review and approve the H&S Plans submitted by their sub-contractors].
- Functionality to schedule and record periodic audits conducted by the PC on their sub-contractors' compliance].
- **Hierarchical Responsibility:** The system must accommodate the principle outlined in Regulation 7(3).⁴⁵ If a sub-contractor (Contractor A) appoints their own sub-contractor (Contractor B), Contractor A assumes the duties of a PC in relation to Contractor B regarding H&S plan approval, audits, etc. The platform should allow for this multi-layered relationship management where necessary, enabling Contractor A to manage Contractor B's compliance within the system, mirroring the legal structure.

5.7 Incident Management & Reporting (OHSA Sec 24, COIDA)

- **Functionality:** Tools for recording, investigating, and reporting workplace incidents.
- **Features:**
 - Digital Incident Register: Log date, time, location, persons involved, type of incident (injury, near miss, property damage, environmental), brief description.²⁰
 - Incident Report Form: Detailed form capturing information needed for internal investigation and external reporting.
 - **Reporting Guidance:** Provide clear prompts regarding mandatory reporting timelines and procedures:
 - *DoL Reporting (OHSA Sec 24):* For serious incidents (fatality, loss of limb, unconsciousness, unable to work for 14+ days, major structural collapse, etc.), report to DoL within 7 days.²⁰ The system could potentially generate a notification or pre-fill relevant DoL forms (if available digitally).
 - *COIDA Reporting:* For occupational injuries/diseases requiring medical attention or causing absence, report to Compensation Commissioner using prescribed forms (e.g., Employer's Report W.Cl.2, Medical Reports W.Cl.4/5).⁷ The system should facilitate capturing information needed for these forms.
 - Investigation Tools: Basic templates or guides for root cause analysis.
 - Corrective Action Tracking: Assign and track the implementation of actions

arising from investigations.

5.8 Training, Induction & Medical Record Management

- **Functionality:** Manage records related to employee H&S readiness.
- **Features:**
 - **Induction Records:** Maintain a register of all employees and visitors who have completed the mandatory site-specific H&S induction training]. Record date, attendee name, trainer.
 - **Training Register:** Track completion of toolbox talks, specific H&S training (e.g., working at height, HCS handling, first aid), and competency assessments.²⁰ Upload training certificates.
 - **Medical Surveillance Records:** Manage Medical Certificates of Fitness (using Annexure 3 format ³²) for all employees engaged in construction work, specific to the tasks they perform]. Track certificate issue date, expiry date (if applicable), practitioner details, and fitness status. Send reminders for required renewals or periodic assessments based on risk exposure (e.g., noise, dust). Ensure confidentiality is maintained.

5.9 Inspection Registers & Checklists

- **Functionality:** Facilitate the recording of mandatory H&S inspections.
- **Features:**
 - Provide digital templates for inspection registers required by regulations (e.g., Scaffolding, Excavations, Fall Protection Equipment, Lifting Machines/Tackle, Portable Electrical Tools, First Aid Boxes, Fire Equipment, Ladders, PPE).²⁰
 - Allow customization of checklists based on site specifics.
 - Enable scheduling of recurring inspections (daily, weekly, monthly as required).
 - Track completion status of inspections.
 - Provide fields to record inspection findings, identify defects or non-conformances, and document corrective actions taken.
 - Allow for digital signatures or confirmation by the competent person performing the inspection.

6. Functional Requirements: H&S Professional Module

This module provides tools specifically for registered H&S Professionals (Agents, Managers, Officers) to perform their duties effectively, whether acting for a Client or a Contractor.

6.1 Client/Contractor Support Functions

- **Functionality:** Allow H&S Professionals to access and manage H&S aspects for projects they are formally assigned to by either a Client (as Agent) or a Contractor (as Manager/Officer).
- **Features:** Access relevant project documentation (Specs, Plans, Files), utilize tools to assist in compiling BRAs, H&S Specs, H&S Plans, HIRAs, and drafting appointment letters, based on their assigned role and permissions.

6.2 Audit & Inspection Tools

- **Functionality:** Streamline the process of conducting H&S audits and site inspections.
- **Features:**
 - Library of digital audit checklists based on OHSA, Construction Regulations, Client Specifications, and Contractor H&S Plans. Allow customization.
 - Mobile interface (potentially via web app or dedicated app) allowing auditors/inspectors to complete checklists, capture photographic evidence, and record findings directly on site.
 - Automated generation of audit/inspection reports, including summaries of findings, non-conformances (categorized by severity), positive observations, and recommendations.
 - Workflow for tracking the close-out of identified non-conformances and corrective actions.

6.3 Risk Assessment Facilitation

- **Functionality:** Provide advanced tools to support the risk assessment process.
- **Features:**
 - Structured workflows for conducting BRAs and HIRAs.
 - Access to pre-defined hazard libraries relevant to construction activities.
 - Templates for different risk assessment methodologies.
 - Tools for evaluating control measure effectiveness.

6.4 Template Management

- **Functionality:** Allow H&S Professionals (potentially with higher permission levels) to create, manage, and customize standard templates used across the platform.
- **Features:** Manage templates for H&S Plans, appointment letters, SWPs, inspection registers, audit checklists, incident report forms, etc., ensuring consistency and compliance with latest standards.

6.5 Compliance Reporting & Analytics

- **Functionality:** Provide H&S Professionals with oversight and analytical capabilities across multiple projects or clients.
- **Features:**
 - Dashboards summarizing compliance status (e.g., % plan approval, % audits completed, overdue items) across assigned projects.
 - Generate consolidated reports on incident statistics (frequency rates, types), common audit findings, training compliance gaps, leading/lagging indicators.
 - Tools for trend analysis to identify systemic issues or areas requiring focused improvement efforts.⁹

6.6 SACPCMP Registration Details Management

- **Functionality:** Allow H&S Professionals to record and manage their professional registration details.
- **Features:**
 - Dedicated fields in the user profile to input their SACPCMP registration number and category (PrCHSA, CHSM, CHSO).¹⁶
 - Optional: Field to upload proof of registration certificate.
 - Optional: Tool to track Continuing Professional Development (CPD) points earned against SACPCMP requirements (as CPD is mandatory for maintaining registration ¹⁰).
- **Verification Importance:** Recording SACPCMP registration details within the platform is vital. It allows Clients and Contractors to verify that the H&S Professionals they appoint meet the mandatory registration requirements set out in the Construction Regulations. This directly supports the duty to appoint *competent* persons and adds a layer of assurance regarding the professional's assessed knowledge and ethical standing.

7. Core System Features & Data Requirements

These features underpin the functionality across all modules.

7.1 Document Generation Engine

- **Requirement:** The system must be able to generate various compliance documents using predefined, legally sound templates.
- **Mechanism:** Templates for H&S Specifications, H&S Plans, various appointment letters, DoL Annexure 1 (Notification), Annexure 2 (Permit Application), and potentially Annexure 3 (Medical Certificate) should be available. The engine must

populate these templates dynamically with relevant project data (names, dates, locations) and user inputs.

7.2 Document Management System

- **Requirement:** Secure and organized storage for all uploaded and generated documents.
- **Features:** Robust version control to track document revisions (especially for H&S Plans, Specs, HIRAs), secure storage preventing unauthorized access or deletion, access logs tracking who viewed/modified documents, clear categorization linked to projects and H&S File structure, tagging for easy retrieval.

7.3 User Authentication & Authorization

- **Requirement:** Secure access control based on user identity and role.
- **Features:** Unique user logins with strong password policies, multi-factor authentication (recommended), strict enforcement of role-based permissions defined in Section 3.4.

7.4 Notifications, Alerts & Reminders

- **Requirement:** Proactive communication to keep users informed and prompt necessary actions.
- **Features:** Configurable automated email or in-platform notifications for:
 - Expiring documents (LoG, medical certificates, permits).
 - Upcoming scheduled events (audits, HIRA reviews).
 - Action required (e.g., H&S Plan submitted for approval, incident assigned for investigation, audit finding requires closeout).
 - Compliance deadlines (e.g., ROE submission window).

7.5 Search Functionality

- **Requirement:** Efficient retrieval of information.
- **Features:** Allow users to search across projects, document contents (if feasible), user names, company names, hazard descriptions, specific regulations, etc., respecting access permissions.

7.6 Key Data Fields

The system database must accommodate comprehensive data capture for core entities:

- **Company:** Name, CIPC Reg No, COIDA Reg No, Physical/Postal Address, Contact Person(s), OHS Policy document link, LoG Number/Expiry/Document Link, Tax

Clearance Status/Link, Insurance Policy Number/Expiry/Link.

- **Project:** Unique Project ID, Name, Client Ref, PC Ref, Site Address/Coordinates, Start Date, Estimated End Date, Project Value, Scope Summary, Permit Required (Y/N), Notification Required (Y/N), Permit Status/Link, Notification Status/Link, List of Associated Users/Roles (Client, Agent, PC, Subs, CHSM, CHSO).
- **User:** Unique User ID, Name, Email, Phone, Role(s), SACPCMP Reg No/Category (if applicable), Assigned Projects/Companies.
- **Employee (linked to Contractor Company):** Name, ID Number, Job Title/Role, Site Induction Date, List of Trainings Completed (with dates/certs), Medical Cert Status/Expiry/Link, List of Appointments Held (with dates/links).
- **Documents:** Unique Document ID, Type (Spec, Plan, HIRA, Appointment, etc.), Version Number, Status (Draft, Submitted, Approved, Rejected, Archived), Author User ID, Creation Date, Last Modified Date, Associated Project ID, Associated Task/Activity ID (for HIRA/SWP), File Path/Link.
- **Risk Data:** Unique Risk ID, Associated Project/Task, Hazard Description, Location, Potential Consequences, Initial Risk Rating (Severity, Likelihood/Frequency/Exposure scores), Control Measures Description, Control Type (Elimination, Eng, Admin, PPE), Residual Risk Rating, Review Date, Assessor User ID.
- **Appointments:** Unique Appointment ID, Appointee Employee ID, Appointed Role (e.g., CHSO, Supervisor), Date of Appointment, Link to Appointment Letter Document, Link to Competency Proof Document(s), Appointer User ID.
- **Audits/Inspections:** Unique Audit/Inspection ID, Date Conducted, Auditor User ID, Scope/Area Audited, Link to Report Document, List of Findings (with severity, status), Due Date for Closeout.
- **Incidents:** Unique Incident ID, Date/Time Occurred, Location, Type (Injury, Near Miss, etc.), Description, Persons Involved, Link to Investigation Report, Status (Open, Closed), Link to Corrective Actions.

8. Non-Functional Requirements

These define the quality attributes and constraints of the system.

8.1 Security & Data Privacy

- **Requirement:** Protect sensitive company and personal information.
- **Measures:** Strict adherence to the Protection of Personal Information Act (POPIA). Secure data storage practices (encryption at rest and in transit), robust access controls, protection against common web vulnerabilities (e.g., OWASP Top 10). Regular vulnerability assessments and penetration testing are recommended.

8.2 Usability & Accessibility

- **Requirement:** The platform must be usable by individuals with varying technical skills, often in challenging site environments.
- **Measures:** Intuitive navigation and user interface design. Clear language and instructions, avoiding excessive jargon where possible. Guided workflows for complex processes (e.g., BRA, Plan creation). Mobile-responsive design to allow access and data entry (e.g., inspections, incident reporting) from tablets or smartphones on site. Consideration of accessibility standards (e.g., WCAG) for users with disabilities.

8.3 Performance & Scalability

- **Requirement:** The system must perform efficiently under load and be able to grow with user demand.
- **Measures:** Optimized database queries and application code. Ability to handle concurrent users across multiple projects without significant slowdowns. Scalable cloud-based architecture (recommended) to accommodate increasing numbers of users, projects, and stored documents over time.

8.4 Maintainability & Compliance Updates

- **Requirement:** The system must be easy to maintain and update, especially regarding changes in legislation.
- **Measures:** Modular software architecture allowing for easier modification of specific components. Clear code documentation. Establish a defined process for monitoring changes to OHSA, COIDA, Construction Regulations, and SACPCMP requirements. This includes tracking proposed amendments (like the Draft Construction Regulations 2024 ¹⁹) and having a plan to update system logic, templates, and workflows promptly upon enactment of new legislation to ensure continued compliance.

9. Recommendations & Conclusion

9.1 Key Implementation Considerations

The successful development of "safetyfirst.help" hinges on several critical factors. Firstly, the accurate translation of complex regulatory requirements (OHSA, COIDA, Construction Regulations, SACPCMP rules) into functional system logic is paramount. Any misinterpretation could lead to non-compliance for users. Secondly, automating the numerous workflows, particularly those involving approvals (e.g., H&S Plan approval by Client) and notifications (e.g., expiring LoG), is essential for streamlining

processes and reducing errors. Finally, a robust and flexible template engine is critical for generating the wide array of legally required documents (Specifications, Plans, Appointments, Annexures) accurately and efficiently.

9.2 User Experience

While legal comprehensiveness is non-negotiable, the platform's usability will be key to its adoption. The target users (Clients, Contractors, H&S Professionals) operate in a high-pressure environment. The system must balance the depth of regulatory detail with an intuitive user experience. Utilizing clear dashboards summarizing project status, guided checklists for mandatory tasks (like BRA or Plan compilation), and simplified workflows will be crucial in making complex compliance processes manageable. Mobile accessibility for on-site tasks like inspections and incident reporting is also highly recommended.

9.3 Future-Proofing

South African OHS legislation is subject to amendment (as evidenced by the draft 2024 Construction Regulations ¹⁹). The platform must be designed with adaptability in mind. A modular architecture will facilitate updates to specific sections (e.g., permit thresholds, appointment competencies) without requiring a complete system overhaul. Establishing a process for ongoing legislative monitoring and timely system updates is vital for long-term viability. Consideration should also be given to potential future integrations with other relevant software, such as HR systems (for employee data), project management tools, or financial systems (for COIDA ROE data).

9.4 Conclusion

The "safetyfirst.help" platform has the potential to offer significant value to the South African construction industry. By automating and structuring the demanding H&S compliance processes mandated by the OHSA, COIDA, and Construction Regulations 2014, it can drastically reduce administrative burden, improve accuracy, enhance transparency between stakeholders, and ultimately mitigate the significant legal and financial risks associated with non-compliance. This specification provides a detailed functional blueprint for developing a platform that is not only technologically sound but also firmly grounded in the legal requirements governing construction health and safety in South Africa, thereby empowering Clients, Contractors, and H&S Professionals to prioritize safety effectively and demonstrably.

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