

**JICA STANDARD  
SAFETY SPECIFICATION  
(JSSS)**

**GUIDE FOR USE OF  
EXECUTING AGENCIES**



**February 2021**

**Japan International Cooperation Agency  
(JICA)**

---

## JICA STANDARD SAFETY SPECIFICATION (JSSS) GUIDE FOR USE OF EXECUTING AGENCIES

### Table of Contents

	Page
<b>Section 1 INTRODUCTION .....</b>	<b>1</b>
1.1 General.....	1
1.2 Objective of JSSS .....	1
1.3 Effectiveness .....	1
1.4 Content.....	1
1.5 Applicability.....	1
1.6 Incorporation of JSSS into Bids and Contracts.....	2
1.7 Sound Working Environment.....	2
1.8 Cost of Compliance with Health and Safety Requirements.....	2
1.9 Structure of Specification.....	3
1.10 Drafting of Particular Safety Specification .....	4
1.11 Use for Ongoing Projects .....	4
1.12 Standard Bidding Documents Under Japanese ODA Loans.....	4
<b>Section 2 PARTICULAR SAFETY SPECIFICATION .....</b>	<b>5</b>
2.1 Drafting Generally.....	5
2.2 Particular Requirements.....	5
<b>Section 3 BILL OF QUANTITIES.....</b>	<b>17</b>
3.1. Incorporation of JSSS Requirements .....	17

---

## **JICA STANDARD SAFETY SPECIFICATION (JSSS) GUIDE FOR USE OF EXECUTING AGENCIES**

### **Section 1 INTRODUCTION**

#### **1.1 General**

- (1) This guide is prepared and issued for the information and assistance of Executing Agencies and (where applicable) their consultants for use in the preparation of Bidding and Contract Documents for Projects where such agencies have agreed with JICA that JSSS shall be adopted.
- (2) Reference to “Executing Agencies” in this guide shall be deemed to include their consultants that have been appointed to provide design stage services in accordance with JICA requirements.
- (3) If the user has questions regarding the use of JSSS, the appropriate JICA official should be consulted.
- (4) This guide is for information only and will not form a part of any Contract for the execution of any Works.
- (5) Definitions and abbreviations used in this guide shall be the same as in JSSS.

#### **1.2 Objective of JSSS**

- (1) As noted in JSSS, JICA requires that all parties engaged in their ODA Projects shall endeavour to establish and maintain a culture ensuring human security and the maintenance of human rights as an essential and fundamental feature.
- (2) The common objective shall be the achievement of a zero-accident rate on the Works, adopting the slogan of “Safety First” by creating a working environment where health and safety are of the highest priority.
- (3) To assist with achieving this objective, JICA has published the JICA Standard Safety Specification (referred to as “JSSS”), which JICA wishes to be adopted for the Projects to be financed by JICA.

#### **1.3 Effectiveness**

Where the parties to a Loan Agreement have specifically agreed to adopt JSSS for a new Project, JSSS shall become effective and be used by Executing Agencies as the technical basis for Health and Safety management on that Project.

#### **1.4 Content**

- (1) JSSS specifies the minimum health and safety requirements to be complied with by the Contractor throughout the execution of the Works.
- (2) JSSS contains general rules for health and safety management with procedural requirements for the preparation, submission, review and response processes for Method Statements and Safety Plans to encourage the safe execution of the Works. JSSS further describes the involvement of the Employer, Engineer and other contractors, and provides requirements for general administration and management of health and safety.

#### **1.5 Applicability**

- (1) JSSS has been developed to apply to Japanese ODA Loan Projects based upon the Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (Multilateral Development Bank Harmonised Edition, June 2010) (MDB version) published by Fédération Internationale des Ingénieurs-Conseils (FIDIC).
- (2) JSSS may apply equally to other JICA assisted Projects that have been awarded under different forms of contract. When so used, suitable modification shall be made to the

definitions and text of JSSS and the Bidding Documents for those Projects to ensure compatibility and consistency with the relevant contract requirements for the Project, reflecting the same intentions, standards and procedures for improving health and safety.

- (3) In particular, when “General Conditions of Contract for Plant and Design Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor (FIDIC Yellow Book), First edition 1999” are used as Conditions of Contract, JSSS may apply only with a minor modification through Particular Safety Specification (See 2.2 Particular Requirements below).

## **1.6 Incorporation of JSSS into Bids and Contracts**

Where the parties to a Loan Agreement have specifically agreed to adopt JSSS for a Project, the Bidding Documents shall clearly state that Bids will be requested on the basis that JSSS is adopted. In such a case, the Bidders/Contractors shall be required to strictly comply with the safety requirements provided in JSSS. Any Bid which is materially non-responsive (e.g. a Bid Stage Safety Plan that is substantially inadequate) shall be rejected. Also, the Employer and Employer’s Personnel are encouraged to closely monitor the safety performance of the Contractor in accordance with JSSS and any other safety requirements during the execution of the Contract.

## **1.7 Sound Working Environment**

Safe construction sites are created from a sound working environment. JICA emphasise the importance of the Executing Agency assisting in the pursuit of a zero-accident rate on the Works, for example by creating a safe working environment for the Works, by including sufficient time for Bidding, reasonable Time(s) for Completion; reasonable, continuous and unobstructed access to the Site, reasonably detailed data on sub-surface and hydrological conditions at the Site, sufficient area(s) for the Site (including, working and storage areas) and the like, wherever possible.

JICA also believes that a sound working environment is enhanced by reasonable contract management by each Party to the Contract. While the responsibility to maintain health and safety at the Site lies with the Contractor, the Employer and Employer’s Personnel are expected to be proactive for the Works to be executed under the slogan of “SAFETY FIRST” (refer to JSSS 1.1 [*Safety Declaration*]). This shall be accomplished by working closely together with the Contractor and issuing appropriate advice or instructions to the Contractor whenever any situation affecting safety matters is identified.

## **1.8 Cost of Compliance with Health and Safety Requirements**

The Executing Agency should recognise that sound health and safety measures incur reasonable expense, the amount of which shall be taken into consideration when the cost estimate is prepared for any Project. Some measures shall be included in the BOQ as individual pay items which, through payment during the execution of the Works, will give the Contractor the incentive to comply with the health and safety requirements in the Contract (refer to Section 3 Bill of Quantities for more detail).

Furthermore, the cost estimate prepared by the Executing Agency should be based on a practical construction method in the given natural and social environment (e.g. Temporary Works to be used). Such construction method shall be a reasonable one, which would be generally adopted to comply with the safety and health requirements imposed in the Contract, whether the corresponding pay items are given in the BOQ or not. The Executing Agency would, by doing so, be able to avoid cost underestimate, which will hinder the progress of implementation of the Project.

## 1.9 Structure of Specification

- (1) JSSS shall be included as a part of the Specification for the Works as illustrated in the following Table 1.1 [*Incorporation of JSSS into Bid and Contract Documents*]. The Specification for the Works shall be subdivided into two (2) parts namely:
  - (a) The Safety Specification (including JSSS); and
  - (b) Other parts of the Specification which shall comprise the specification for the general and technical aspects of the Works, excluding requirements for health and safety.
- (2) The Safety Specification shall consist of two (2) parts namely:
  - (a) Part 1: JICA Standard Safety Specification (JSSS):  
Comprising JSSS as issued at the Base Date of the Contract.
  - (b) Part 2: Particular Safety Specification:  
Comprising a schedule containing the particular additions and modifications to JSSS, necessary to create a precise and relevant specification for the health and safety requirements for the Project.

**Table 1.1: Incorporation of JSSS into Bid and Contract Documents**

**List of Contract Documents and Sequence of Priority  
GC 1.5 [*Priority of Documents*]:**

1. the Contract Agreement (*if any*),
2. the Letter of Acceptance,
3. the Letter of Tender,
4. the Particular Conditions - Part A,
5. the Particular Conditions - Part B,
6. the General Conditions,
7. the Specification:
  - (1) the Safety Specification:
    - (i) Particular Safety Specification; and
    - (ii) JSSS
  - (2) the General and Technical Specification:  
(*no fixed content but usually containing the following*)
    - (i) General Requirements;
    - (ii) Site Preparation;
    - (iii) Concrete Works; and
    - (iv) Others.
8. the Drawings, and
9. the Schedules and any other documents forming part of the Contract.

**Specification Priorities:**

1. Within the Safety Specification, the Particular Safety Specification shall have priority over JSSS; and
2. The Safety Specification shall have priority over the other parts of the Specification in respect of health and safety matters.

**Note: When JSSS is used in a design-build contract under FIDIC Yellow Book, JSSS will be a part of “Employer’s Requirement”, instead of “Specification”.  
(See also 1.5 (3) above)**

**1.10 Drafting of Particular Safety Specification**

- (1) As JSSS is a specification of minimum requirements for compliance by the Contractor, there shall be no substantial deletion or alteration of JSSS requirements in the Particular Safety Specification unless so justified due to the scope of the Works.
- (2) When additional or different safety requirements are to be applied due to Project specific requirements, these requirements shall be developed and included in the Particular Safety Specification.
- (3) Executing Agencies shall take care when they prepare other parts of the Specification and other parts of the Bidding Documents where JSSS is to be adopted, to ensure that there is no duplication of or contradiction to the health and safety requirements contained in the Project Safety Specification.

**1.11 Use for Ongoing Projects**

- (1) Unless otherwise agreed between JICA and the Executing Agency, JSSS shall not be automatically used on all JICA funded Projects, JSSS shall only be used when it becomes effective on the particular ODA Project as described in this guide, in Clause 1.3 [*Effectiveness*].
- (2) Where JSSS is already in use on any Project and by further agreement between JICA and the Executing Agency, future issues/revisions of JSSS may be applied after the date that such future issues/revisions are published on line subject to issue by the Engineer of an appropriate Variation under GC 13.1 [*Right to Vary*].

**1.12 Standard Bidding Documents Under Japanese ODA Loans**

- (1) JICA intend to amend and re-issue the “Standard Bidding Documents Under Japanese ODA Loans, Procurement of Works”, published by the Japan International Cooperation Agency (JICA) (hereinafter referred to as “SBD”) to cover the required amendments to accommodate JSSS.
- (2) In order that JSSS can be used without delay and where so agreed to be used on particular Projects, the Bidding Documents for such Projects shall be drafted to take account of this guide in advance of publication of the next issue of SBD.
- (3) The form of “Safety Plan” in SBD Section IV. Bidding Forms shall include an explanatory note to the Bidders to inform them that they shall submit a safety plan in their bid in accordance with JSSS Annex 1.2, “Bid Stage Safety Plan”.
- (4) The HSO shall be specified as one of the key personnel to be evaluated in SBD Section III. Evaluation and Qualification Criteria.
- (5) The Bidders Safety Declaration shall be added in SBD Section IV Bidding Forms.

## Section 2 PARTICULAR SAFETY SPECIFICATION

### 2.1 Drafting Generally

- (1) The Particular Safety Specification shall be carefully and precisely drafted, amending the various general requirement Clauses of JSSS by adding particular requirements to ensure that the scope is precisely specified and so that the Contractor’s obligations are clear and unambiguous.
- (2) The amendments shall cover the examples listed in the table in Clause 2.2 below, noting that this listing is not exhaustive.
- (3) The use in JSSS of the phrase “specified in the Particular Safety Specification” shall mean that either full requirements shall be specified in the Particular Safety Specification or, that reference shall be made in the Particular Safety Specification to other particular parts of the Specification or other documents comprised in the Contract, where full requirements are so specified.

### 2.2 Particular Requirements

In addition to the requirements described in this guide in Clause 2.1 [*Drafting Generally*], the Executing Agency shall consider the requirement to amend and/or supplement any Clauses of JSSS including those listed as examples in the following Table 2.1 [*Sample Requirements for the Particular Safety Specification*].

**Table 2.1: Sample Requirements for the Particular Safety Specification**

Reference	Requirements
JSSS 1.2.2 (7)	<p>When “General Conditions of Contract for Plant and Design Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor (FIDIC Yellow Book), First edition 1999”, which have a lot of similarity in their structure and terminology with FIDIC MDB version, are used as Conditions of Contract, JSSS may apply only with a minor modification through Particular Safety Specification as follows:</p> <p>“JSSS 1.2.2 (7) shall now read as follows:</p> <p>JSSS shall form a part of the design build Contract and therefore the definitions contained in the “Conditions of Contract for Plant and Design Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor”, First edition 1999, released by the <i>Fédération Internationale des Ingénieurs-Conseils</i> (FIDIC) as applied to that Contract, apply equally and are used in JSSS.”</p>
JSSS 1.12 Health and Safety Officer at the Site (HSO)	<p>Refer to JSSS 1.12 [<i>Health and Safety Officer at the Site (HSO)</i>] where the minimum required period of experience and types of qualification for the HSO are described. If different periods of experience or qualifications are legal requirements under the Laws of the Country, then these shall be clearly stated in the Particular Safety Specification.</p> <p>In case of large and/or complex construction work, it is worth considering to require the HSO to have an internationally</p>

<b>Reference</b>	<b>Requirements</b>
	<p>recognized academic, educational or vocational qualification such as:</p> <ul style="list-style-type: none"> <li>(a) An International Diploma issued by the National Examination Board in Occupational Safety and Health (NEBOSH) in UK; or</li> <li>(b) A certification as a Certified Safety Professional (CSP) by the Board of Certified Safety Professionals (BCSP) in USA.</li> </ul> <p>The general requirement in JSSS is that the HSO shall be assigned full-time upon the Works and spend all of his time on health and safety management.</p> <p>JICA advise that such full-time assignment is the normal requirement and part-time or shared assignment is only allowable on extremely small Projects or when part-time or shared assignment is justified with particular reasons.</p> <p>If the justification for part-time or shared assignment is acceptable to JICA, the agreed requirements shall be clearly stated in the Particular Safety Specification.</p>
<p>JSSS 1.21 Skill Training</p>	<p>The Particular Safety Specification shall state whether the Contractor is allowed to bring into the Country for use upon the Works any unqualified, unskilled or inexperienced foreign Contractor's Personnel.</p>
<p>JSSS 1.22 Dangerous Work</p>	<p>If there is a known possibility that any Dangerous Work will be necessary this shall be stated and full details provided of all likely hazards in the Particular Safety Specification.</p> <p>If the scope of the Works includes any work to be performed in Operational Areas, then a list of such works and a full description of the nature and conditions of operations shall be included in the Particular Safety Specification. Any requirements and restrictions on the Contractor's working methods and times and any special access, safety or other arrangements shall be further described in detail.</p> <p>The respective responsibilities for insurance, health and safety management, security, health and welfare facilities, etc., between the Employer and Contractor(s) shall be clearly described so that there is no doubt over what each party is to perform or provide.</p> <p>A copy of the Employer's working procedures, including their health and safety procedures shall be provided to Bidders for their study during the Bidding period.</p>
<p>JSSS 1.22.11 Hazardous Substances</p>	<p>After Site survey and investigation has been carried out by the Executing Agency during the design stage and if it is considered that there is any likelihood of the existence of Hazardous</p>



Reference	Requirements
	<p>Substances at the Site of the Works or in any existing buildings and structures, the results of the survey shall be included in the Particular Safety Specification.</p> <p>If removal is to be undertaken by the Contractor, this shall be stated in the Particular Safety Specification with full details and drawings of the extent and requirements for removal and disposal.</p>
<p>JSSS 1.24                      Accident Response Plan</p>	<p>Although the Contract places obligations upon the Contractor under GC6.7 [<i>Health and Safety</i>], the Particular Safety Specification shall include a listing and description of any particular services and facilities that the Contractor is required to provide at the Site in addition to those already described in the Conditions of Contract.</p> <p>This is particularly relevant where the Site is located at an excessive distance from urban areas and/or where there is a lack of immediate availability of medical facilities, or where local health authorities do not exist or are lacking in capability or standard of care, or where so required by the nature of the Works, the Contractor shall be responsible for providing additional services and facilities at the Site as are necessary to fully protect all Contractor's Personnel on the Site.</p> <p>The circumstances shall be investigated by Executing Agencies during the design stage and full requirements shall be clearly described in the Bidding Documents.</p> <p>Such additional services and facilities at the Site could for example include:</p> <ol style="list-style-type: none"> <li>(1) Enhanced medical staff with qualified doctor(s).</li> <li>(2) Enhanced first aid and treatment facilities and staff.</li> <li>(3) Enhanced medical equipment, medical supplies, medicines and drugs.</li> <li>(4) Additional treatment and recovery rooms.</li> <li>(5) An equipped ambulance based at the Site with qualified driver and attenders.</li> <li>(6) Where transfer time by road can exceed required time for major trauma injuries from the Site to trauma treatment centre, emergency air-ambulance evacuation services, shall also be considered in addition to the above.</li> <li>(7) Above services and facilities are available seven (7) days per week, twenty-four (24) hours per day or during the normal working hours stated in the Contract Data, etc.</li> </ol> <p>The Particular Safety Specification shall state whether the medical, first aid and related services and facilities at the Site are to be available for during the normal working hours stated in the Contract or for any longer times.</p> <p>If any services and facilities under the Contract or additional services and facilities by JSSS are required to continue during the</p>

Reference	Requirements
	<p>Defects Notification Period or are to be handed to the Employer on issue of the Taking-Over Certificate then this shall be clearly specified in the Particular Safety Specification. All such services and facilities shall be described and fully specified. If any facilities are to be handed to the Employer then any related requirements for replacement, repair or renovation shall be described.</p> <p>The Particular Safety Specification shall also state whether the medical, first aid and related services and facilities at the Site for accidental injuries (or more) shall also be made available and whether free of charge or not to any accompanying family members of the Contractor's Personnel and the Employer's Personnel.</p>
<p>JSSS 1.29                      Project Safety Committee</p>	<p>On large Projects with multiple contract packages, the Executing Agency may consider that an overall Project Safety Committee should be established to manage and coordinate all of the various contracts comprised in the Project.</p>
<p>JSSS 1.30                      Health and Safety Coordination with Other Contractors, (refer also to GC 2.3 [<i>Employer's Personnel</i>])</p>	<p>The Particular Safety Specification shall describe the scope of work of any other contractors that may be employed by the Employer on or near the Site and where possible identify them by name.</p> <p>The Particular Safety Specification shall also describe the scope of work of any legally constituted public authorities and any third parties that may be employed by the Employer to execute work on or near the Site and identify them by name.</p>
<p>JSSS 1.36                      Health Matters</p>	<p>Although the Contract places obligations upon the Contractor under GC6.7 [<i>Health and Safety</i>], the Particular Safety Specification should include a listing and description of any particular services and facilities that the Contractor is required to provide at the Site for health control in addition to those already described in the Contract.</p> <p>The listing should also include accommodation, furniture and equipment for rest stations, restroom, dining facilities, canteens, sanitary facilities, recreational facilities, shower facilities, changing rooms, religious facilities if needed and the like together with a description of any requirements for use and for example whether such services and facilities can be used by the Employer's Personnel and their families.</p> <p>This is particularly relevant where the Site is situated some distance away from urban areas and/or where there is a lack of immediate availability of suitable healthcare services and facilities, or where local health authorities do not exist or are lacking in capability or standard of care, or where so required by the nature of the Works, the Contractor shall be responsible for providing additional services and facilities at the Site as are necessary to fully protect all Contractor's Personnel, to compensate for any lack of available services or facilities or lack of any local health authorities.</p>

Reference	Requirements
	<p>The circumstances shall be investigated by Executing Agencies and their consultants during the design stage and full requirements shall be clearly described in the Bidding Documents.</p> <p>The Particular Safety Specification shall state whether the services and facilities specified are to be available during the normal working hours stated in the Contract or for any longer times.</p> <p>If any services and facilities under the Contract or additional services and facilities by JSSS are required to continue during the Defects Notification Period or are to be handed to the Employer on issue of the Taking-Over Certificate then this shall be clearly specified in the Particular Safety Specification. All such facilities shall be described and fully specified. If any facilities are to be handed to the Employer, any requirements for replacement, repair or renovation shall be described.</p> <p>The Particular Safety Specification shall also state whether the services and facilities at the Site shall also be made available and whether free of charge or not, to any accompanying family members of the Contractor's Personnel and the Employer's Personnel.</p>
<p>JSSS 1.37                      Design and Management of Temporary Works</p>	<p>As a standard requirement, the Particular Safety Specification shall require the Contractor to comply with BS5975 [Code of Practice for temporary works procedures and the permissible design of false work] (latest issue) or approved equivalent for the design and management of Temporary Works.</p> <p>If the Contractor is NOT required to comply with BS5975, the Particular Safety Specification shall state this and also state that the Contractor is still required to comply in any event with the specified requirements of JSSS 1.37 [<i>Design and Management of Temporary Works</i>] and submit full details in the Safety Plan.</p>
<p>JSSS 1.38                      Unexploded Ordnance (UXO)</p>	<p>If there is a known possibility that any UXO may exist at the Site, then this shall be surveyed and investigated by the Executing Agency before Bids are requested. The result of this investigation shall be clearly stated and full information including survey and investigation results shall be provided by the Executing Agency in the Particular Safety Specification.</p> <p>Clearance of UXO shall be undertaken by the Executing Agency as a condition precedent to commencement under GC 8.1 [<i>Commencement of Works</i>], by the agency's own arrangements and at their own cost. Clearance shall be carried out by specialist government organisations, forces or contractor(s) that are appropriately and specifically qualified, skilled and experienced in the safe and environmentally acceptable removal and disposal of UXO, engaged directly by the Executing Agency.</p> <p>Completion of clearance shall be evidenced through the issue by the Executing Agency's specialist remover of a certificate of UXO clearance from the Site area. A copy of this certificate shall be</p>

<b>Reference</b>	<b>Requirements</b>
	<p>provided to the Engineer and the Contractor. No work shall commence in relevant areas of the Site until the receipt by the Engineer and Contractor of a copy of this certificate.</p> <p>Should the Contractor encounter any UXO, after a clearance certificate has been issued in accordance with the above, he shall immediately stop all affected work at Site, clear the affected area of all Contractor's Personnel, Employer's Personnel and all other persons and notify the Engineer and relevant authorities.</p> <p>Unless otherwise agreed with the Contractor, the Employer shall then make further arrangements for removal and disposal, then obtain and issue a further clearance certificate. Work shall resume in the affected areas after the Contractor has received a copy of the further clearance certificate together with any further instructions from the Engineer.</p>
<p>JSSS 2.1.1                      Hazardous Substances</p>	<p>If there is a known possibility that any Hazardous Substances may exist at the Site this shall be stated and full details provided of all likely hazards in the Particular Safety Specification.</p>
<p>JSSS 2.1.2 (4)                      Asbestos</p>	<p>If there is a known possibility that asbestos in any of its various forms may exist at the Site (for example in existing buildings, structures or installations or which has been disposed of or buried at the Site) then this shall be surveyed and investigated by the Executing Agency using a specialist qualified consultant/contractor before Bids are requested. The result of this investigation shall be clearly stated and full information including survey and investigation results shall be provided in the Particular Safety Specification.</p> <p>If possible, removal and disposal of this asbestos shall be undertaken by the Executing Agency before commencement of the Works by the Executing Agency's own arrangements and at their own cost. Removal and disposal shall be carried out by a specialist that is appropriately and specifically qualified, skilled and experienced in the safe and environmentally acceptable removal and disposal of asbestos, engaged directly by the Executing Agency.</p> <p>Completion of removal and disposal shall be evidenced through the issue by the specialist of a suitable certificate. A copy of this certificate shall be provided to the Engineer and the Contractor. No work shall commence at the Site until the receipt by the Engineer and Contractor of a copy of this certificate.</p> <p>Should the Contractor encounter any asbestos, after a clearance certificate has been issued in accordance with the above, he shall immediately stop all affected work at Site, clear the affected area of all Contractor's Personnel, Employer's Personnel and all other persons and notify the Engineer and relevant authorities.</p>

Reference	Requirements
	<p>Unless otherwise agreed between the Employer and Contractor, the Engineer shall issue an appropriate Variation under GC 13 [<i>Variations and Adjustments</i>].</p> <p>If removal is to be undertaken by the Contractor, this shall be stated in the Particular Safety Specification with full details and drawings provided, showing the extent and requirements for removal and disposal.</p> <p>Separate pay items shall be included in the Bill of Quantities to allow pricing of the removal and disposal with separate lump sum items given for mobilisation and removal of resources and approximate quantities given for the area of asbestos.</p>
<p>JSSS 2.1.7 (6) to (13)                      Monitoring and Records</p>	<p>The Contractor shall monitor any vibration, settlement and other adverse effects arising out of the execution of the Works to ascertain if these are causing any adverse effect to the Works or to Other Properties whilst ensuring that no damage or weakening is caused.</p> <p>If there is a risk that the execution of the Works may cause any damage to “Other Properties” and if the Executing Agency considers that particular requirements for monitoring equipment, locations and methods are necessary, then these shall be specified in the Particular Safety Specification. The methods may include for example the inclusion of monitoring criteria in the Particular Safety Specification to assist the Contractor in establishing his own procedures for monitoring, to avoid any damage to Other Properties.</p> <p>If these particular requirements are included, it is important also to state in the relevant Clause of the Particular Safety Specification that the requirements are the minimum only and that compliance with such requirements shall not relieve the Contractor from any responsibility that he has under the Contract including responsibility to execute the Works without causing any damage to Other Properties.</p>
<p>JSSS 2.2.2                      Working Area Perimeter</p>	<p>The Particular Safety Specification shall describe the required working area perimeter showing the extent, dimensions, constructional details and specification of any fencing or barriers, whether temporary or permanent. This is particularly required where any Dangerous Work is known to be required.</p> <p>Full information shall also be shown on the Drawings.</p> <p>Gates, barriers and other measures at Site entrances shall be described together with any arrangements for communications, lighting and power supply.</p> <p>Requirements for security at the Site entrance and also around the Site shall be described and whether these are to be provided by the Contractor or the Employer.</p>

Reference	Requirements
<p>JSSS 2.2.6 Community Relations</p>	<p>The Particular Safety Specification shall require the Contractor to assist the Employer with creating and maintaining community relations, for example conducting traffic safety and awareness activities for the local community. Full details of requirements shall be specified.</p>
<p>JSSS 2.8 Fire Prevention</p>	<p>Although the Contract places obligations upon the Contractor for care of the Works, the Particular Safety Specification should include a listing and description of any particular fire-fighting and rescue services and facilities that the Contractor is required to provide at the Site.</p> <p>This is particularly relevant where the Site is situated some distance away from urban areas and/or where there is a lack of immediate availability of suitable fire-fighting and rescue services and facilities, or where such services and facilities do not exist or are lacking in capability or standard of care, or where so required by the nature of the Works, the Contractor shall be responsible for providing additional services and facilities at the Site as are necessary to fully protect all Contractor's Personnel, to compensate for any lack of available services or facilities or lack of local firefighting and rescue authorities.</p> <p>The circumstances shall be investigated by Executing Agencies during the design stage and full requirements shall be clearly specified in the Particular Safety Specification.</p> <p>Such additional services and facilities at the Site could for example include:</p> <ol style="list-style-type: none"> <li>(1) An equipped fire engine based at the Site with qualified driver and crew selected from the workers at the Site.</li> <li>(2) Sufficient temporary water and power supply to maintain emergency use.</li> <li>(3) Additional PPE for the fire-fighting and rescue team.</li> <li>(4) Enhanced fire protection equipment and facilities around the Site.</li> <li>(5) Above services and facilities are available seven (7) days per week, twenty-four (24) hours per day or during the normal working hours stated in the Contract Data, etc.</li> </ol> <p>Where applicable, details shall be provided in the Particular Safety Specification for the selection, training and equipping of emergency fire-fighting teams selected from existing Contractor's Personnel at the Site, who in addition to their normal work, shall be called upon immediately in the event of any fire, to rescue any person(s) who may become trapped or injured or otherwise affected or incapacitated by fire and to provide suitable, specialist and appropriate first aid and medical treatment.</p>

Reference	Requirements
	<p>Without limiting the Contractor’s obligations, the Particular Safety Specification shall describe the particular scope of fire prevention services that are to be provided by the Contractor for the Works.</p> <p>If any services and facilities as required under the Contract or additional facilities as required by JSSS are required to continue during the Defects Notification Period or are to be handed to the Employer on issue of the Taking-Over Certificate then this shall be clearly specified in the Particular Safety Specification. All such services and facilities shall be described and fully specified. If any facilities are to be handed to the Employer, any requirements for replacement, repair or renovation shall be described.</p>
<p>JSSS 3                      Existing                      Underground,                      Concealed and                      Overhead Services</p>	<p>The Particular Safety Specification shall describe the required extent of any work required in connection with any existing Underground, Concealed or Overhead Services. Details and specification shall also be shown on the Drawings.</p> <p>If any such services are the property of the Employer, this shall be stated clearly and the route, size, purpose of each shall be described and shown. If these services are to remain live and functional throughout the Time for Completion of the Works or if they are to be removed and if so by whom shall also be described.</p> <p>If any of these services are the property of a legally constituted public authority or a third party, this shall be stated clearly and the owner, route, size, purpose of each shall be described and shown.</p> <p>A copy of the regulations of the legally constituted public authority or third party shall be provided in the Particular Safety Specification or made available with the Bidding documents.</p> <p>If services are to remain live and functional throughout the Time for Completion of the Works or if they are to be removed and if so by whom, (i.e. the authority or third party or the Contractor) shall also be described. The Particular Safety Specification shall also describe or include the procedures and requirements (including responsibility for insurance and safety procedures) of the authority or third party if the Contractor is to carry out the work.</p>
<p>JSSS 4.7                      Temporary Fuelling                      Facilities</p>	<p>If fuel storage and dispensing arrangements are existing at the Site and are available for the Contractor’s temporary use upon the Works then this shall be specified in the Particular Safety Specification and the requirements for use shall be described.</p> <p>When applicable, the Contractor shall design and construct temporary fuel storage and dispensing facilities at the Site for the use in Contractor’s Equipment. If there are any restrictions upon the provision and use of such facilities, then these shall be described in the Particular Safety Specification.</p>

Reference	Requirements
<p>JSSS 6.1.1 Design and Provision</p>	<p>In accordance with JSSS 1.37 [<i>Design and Management of Temporary Works</i>], the Contractor is generally required to comply with the requirements of Sections 1 and 2 of BS5975: Code of Practice for Temporary Works Procedures and the Permissible Stress Design of Falsework or an equivalent alternative standard.</p> <p>On exceptionally small projects or projects which do not demand the provision of complex temporary supporting or load bearing falsework and the like, the following alternative requirements may apply and if so, the following shall be included in the Particular Safety Specification:</p> <p><i>The Contractor shall demonstrate by description in the Safety Plan that he has effective arrangements in place for controlling risks arising from the design, selection of materials, components and equipment, use, management, dismantling and removal of Temporary Works including for example, by ensuring the following:</i></p> <ol style="list-style-type: none"> <li>(1) <i>Appointment of appropriately qualified and experienced staff.</i></li> <li>(2) <i>Preparation of adequate Temporary Works designs.</i></li> <li>(3) <i>Independent internal or external checking of the Temporary Works Design.</i></li> <li>(4) <i>Preparation of a written record, listing all Temporary Works with supporting details and dates.</i></li> <li>(5) <i>Pre-erection inspection of all Temporary Works, including materials, components and equipment.</i></li> <li>(6) <i>Control and supervision of the Temporary Works erection, safe use, maintenance and dismantling of the Temporary Works, including procedures to:</i> <ol style="list-style-type: none"> <li>(a) <i>Check that the Temporary Works have been erected in accordance with the design and issue by the HSO of a suitable sign showing it as complete and safe to use; and</i></li> <li>(b) <i>Confirm when the Permanent Works have attained adequate strength to allow dismantling of the Temporary Works and issue by the HSO of a suitable sign showing that it is ready for dismantling.</i></li> </ol> </li> </ol> <p><i>In accordance with JSSS 1.18 [Proper Placement of Contractor's Personnel], the Contractor shall ensure that the design, erection, maintenance, dismantling and removal of Temporary Works, are all carried out by competent and experienced persons and in a controlled and closely supervised manner.</i></p>
<p>JSSS 6.2 Earthwork Support</p>	<p>For monitoring requirements, refer to the above reference in this table to JSSS 2.1.7 [<i>Monitoring and Records</i>].</p>



Reference	Requirements
JSSS 6.3 Cofferdams	For monitoring requirements, refer to the above reference in this table to JSSS 2.1.7 [ <i>Monitoring and Records</i> ].
JSSS 7.1.2 Monitoring	For monitoring requirements, refer to the above reference in this table to JSSS 2.1.7 [ <i>Monitoring and Records</i> ].
JSSS 7.2 Particular Safety Measures	<p>In accordance with JSSS 7.2 [<i>Particular Safety Measures</i>], the Contractor shall be responsible for choosing manual or machine excavation, selecting types of Contractor's Equipment, types of Temporary Works, Earthwork Support, spoil removal, storage and handling, controlling ground and surface water, forming embankments and cuttings and the like.</p> <p>If there are any known and specific requirements or restrictions to be placed upon the Contractor for methods of excavation, types of equipment, Temporary Works Earthwork Support, spoil removal, storage and handling, controlling ground and surface water, forming embankments, cuttings and the like, then this shall be stated in the Particular Safety Specification and the requirements shall be specified.</p>
JSSS 7.6.1 Scope	If the scope of the Works includes Blasting Works for tunnelling (which is presently not included in the scope of JSSS), full safety requirements shall be specified in the Particular Safety Specification.
JSSS7.6.2 General Requirements	If Blasting Works are not allowable then this shall be stated in the Particular Safety Specification and any requirements and restrictions shall be specified.
JSSS 7.6.10 Monitoring	For monitoring requirements, refer to the above reference in this table to JSSS 2.1.7 [ <i>Monitoring and Records</i> ].
JSSS 8.2.7 Monitoring	For monitoring requirements, refer to the above reference in this table to JSSS 2.1.7 [ <i>Monitoring and Records</i> ].
GC 6.6 Facilities for Staff and Labour	<p>The Particular Safety Specification shall describe any necessary accommodation and welfare facilities that the Contractor is to provide for the Contractor's Personnel and whether such facilities or further facilities are also to be provided for the Employer's Personnel and others.</p> <p>If any land area is available at the Site for such facilities this shall be stated and shown and any requirements and restrictions shall be described.</p> <p>The Particular Safety Specification shall describe the required scope, design, constructional details and specification, whether</p>

Reference	Requirements
	<p>temporary or permanent and this shall also be shown on the Drawings.</p> <p>If such facilities are required, the Particular Safety Specification shall describe in detail:</p> <ol style="list-style-type: none"> <li>(1) Responsibility and scope of maintenance, repair and cleaning of such facilities as necessary to maintain them in a clean, habitable, hygienic and safe condition, including garbage removal and disposal, rodent and insect control and the like.</li> <li>(2) Responsibility for and scope of potable water supply, water and power supply, waste water and sewage drainage and treatment.</li> <li>(3) Whether such facilities are required to be provided during the Defects Notification Period.</li> <li>(4) Whether such facilities are to be removed by the Contractor or are to be handed over to the Employer on issue of the Taking-Over Certificate and if so in what condition.</li> </ol> <p>The extent of provision by the Contractor shall take due account of the nature and location of the Site and the condition of access thereto, with a higher range and standard of facilities being provided in remote locations to promote good health, hygiene, comfort, welfare and safety of all users and occupants.</p>

### Section 3 BILL OF QUANTITIES

#### 3.1. Incorporation of JSSS Requirements

- (1) The Bills of Quantities to be prepared by the Executing Agency for the purposes of the Bidding Documents, Section IV. Bidding Forms shall include separate pay items to cover the main component parts of JSSS.
- (2) The Executing Agency shall prepare a Bill of Quantities in accordance with the “Standard Bidding Documents Under Japanese ODA Loans, Procurement of Works”, in order to:
  - (a) Provide the facility for the Contractor to include the cost of JSSS compliance in his Bid; and
  - (b) Provide a basis for the preparation of Statements as part of the Contractor’s application for payment under GC 14 [*Contract Price and Payment*].
- (3) Appropriate pay items shall be included in Bill No. 1 - General Items, to cover all principal components of the Safety Specification, such as:
  - (a) Assignment of HSO with supporting staff and provision of safety management activities (JSSS 1.13);
  - (b) Skill Training (JSSS 1.21);
  - (c) Accident Response Plan (JSSS 1.24);
  - (d) Emergency Response Plan (JSSS 1.26);
  - (e) Health Matters (JSSS 1.36);
  - (f) Design and Management of Temporary Works (JSSS 1.37); and
  - (g) Fire Prevention (JSSS 2.8).

The Pay items for the above shall be separated into lump sum and monthly payment items generally in accordance with the following Table 3.1 [*Sample Pay Items in the Bill of Quantities*].

**Table 3.1: Sample Pay Items in the Bill of Quantities**

Ref	Description	Establishment and Removal of Facilities (Lump Sum)	Provision of Services (Month)
(a)	Assignment of HSO with supporting staff and provision of safety management activities		✓
(b)	Skill Training		✓
(c)	Accident Response Plan	✓	✓
(d)	Emergency Response Plan	✓	✓
(e)	Health Matters	✓	✓
(f)	Design and Management of Temporary Works		✓
(g)	Fire Prevention	✓	✓

- 
- (4) As an example of the above for the Accident Response Plan:
- (a) The Lump Sum shall cover the costs of provision and removal of facilities including:
- (i) Sick bay;
  - (ii) Ambulance (if to be provided at the Site);
  - (iii) First aid appliances, aids, instruments and medicines;
  - (iv) Communication facilities;
  - (v) Any other temporary buildings required for response to accidents;
  - (vi) Temporary water and power supply to maintain use in accident response facilities during mains supply failure; and
  - (vii) Any additional facilities that may be specified in the Particular Safety Specification or otherwise required for compliance with the Contract.
- (b) The monthly rate shall cover the regular costs of providing services including:
- (i) Salaries, living costs and any other regular costs and expenses of medical staff, drivers and attendants;
  - (ii) Medical, first aid consumable and further supplies;
  - (iii) Supply and replacement of PPE for medical staff;
  - (iv) Costs of fuel, water, power and other consumables;
  - (v) Ongoing cleaning, maintenance and repair of facilities;
  - (vi) First aid training; and
  - (vii) Any additional services that may be specified in the Particular Safety Specification or otherwise required for compliance with the Contract.
- (5) The quantity for the monthly item for provision of services shall be the required period for provision, which normally will not exceed the Time for Completion. Any services required during the Defects Notification Period to oversee completion of outstanding work and to remedy defects shall usually be at the Contractor's own cost.
- (6) Appropriate pay items shall be included in other Bills of Quantities with relevant quantities, unit rates and sums for other parts of JSSS according to the particular scope of the Works for example removal of known hazardous substances and Blasting Works.