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**ISO 9001: 2015
QUALITY MANAGEMENT SYSTEM**

RISK ASSESSMENT AND CONTINGENCY PLAN

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**STEEL AUTHORITY OF INDIA LIMITED
CENTRE FOR ENGINEERING & TECHNOLOGY
RANCHI - 834002**

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5. Contingency plan has been made for medium and high risks only. No contingency plan made for low risk.



RISK ASSESSMENT AND CONTINGENCY PLAN

(A) GUIDELINE FOR RISK ASSESSMENT

| Criteria Score | Probability of Occurrence (P) | Severity (S) | Possibility Of Detection (D) | Levels of Risk | |
|----------------|-------------------------------|--|---------------------------------------|---------------------------------------|--------------------|
| | | | | RPN- Risk Priority Number = P x S x D | |
| 01 | Remote | Very Minor (Limited to Process/ Equipment, not affecting facility/ equipment availability) | Likely (Found before processing) | High (H) | RPN \geq 48 |
| 02 | Rare | Minor (Affecting supplier performance & material availability/supply) | Possible (Found during processing) | | |
| 03 | Unlikely | Significant | Unlikely (Found during Inspection) | Medium (M) | 18 \leq RPN < 48 |
| 04 | Possible | Critical (Nonconformity to process/ equipment/ product before delivery) | Rare (Found by Customer before use) | | |
| 05 | Likely | Catastrophic (Delivery of non-conforming product to customer) | Remote (Found by Customer after use) | Low (L) | RPN < 18 |

**(B) RISK ASSESSMENT**

| Sl.No. | IDENTIFIED RISK | IMPACT ON QUALITY/ DELIVERY | EXISTING CONTROL | RISK ASSESSMENT | | | RISK PRIORITY NUMBER (RPN) PxSxD | RISK LEVEL | ACTION TO BE TAKEN (Refer CP-) and RESPONSIBILITY |
|--------|--|---|--|-----------------|-----------------|--------------|---|------------|--|
| | | | | P | S | D | | | |
| 1. | Mismatch/ errors in documents | Quality | Checking before issue | Remote (1) | Minor (2) | Possible (2) | $1 \times 2 \times 2 = 4$ | L | Not necessary because of low risk |
| 2. | Errors in drawings prepared by CET | Quality deterioration | Single person scrutiny of drawings | Rare (2) | Significant (3) | Unlikely (3) | $2 \times 3 \times 3 = 18$ | M | Checking and approval of drawings by different persons (CP-1) Resp: HOD_P 8.3-19 |
| 3. | Incomplete documents | Delivery | Checking before issue | Rare (2) | Minor (2) | Possible (2) | $2 \times 2 \times 2 = 8$ | L | Not necessary because of low risk |
| 4. | Not meeting committed schedule for FR & TS | Delivery | Reviews & HOD meeting | Rare (2) | Significant (3) | Possible (2) | $2 \times 3 \times 2 = 12$ | L | Not necessary because of low risk |
| 5. | Not obtaining budgetary quotations on time | May hamper achieving timelines set in activity planning | Maintaining item wise record of budgetary quotations | Possible (4) | Significant (3) | Likely (1) | $4 \times 3 \times 1 = 12$ | L | Not necessary because of low risk |



| Sl.No. | IDENTIFIED RISK | IMPACT ON QUALITY/ DELIVERY | EXISTING CONTROL | RISK ASSESSMENT | | | RISK PRIORITY NUMBER (RPN) PxSxD | RISK LEVEL | ACTION TO BE TAKEN (Refer CP-) and RESPONSIBILITY |
|--------|---------------------------|--|-----------------------------|-----------------|--------------|--------------|----------------------------------|------------|---|
| | | | | | | | | | |
| | | schedule | received in recent past. | | | | | | |
| 6. | Loss of data stored in PC | Delays apprehended in obtaining / re-generating the data | Anti-virus system is loaded | Possible (4) | Critical (4) | Possible (2) | 4x4x2= 32 | M | Protection through regular back up of data/ Having disaster recovery system. (CP-2) Resp: HOD Cl. 7.5.3 of Quality Manual_P 7.5-02(C)_Pro.Man |



| | | | | | | | | | |
|----|---|--|--|------------------------|-------------------------|------------------------|------------------------|-----------------|---|
| 7. | Absence of any soil or underground data | Delivery schedule is affected due to (a) unforeseen hurdles during execution of underground jobs of laying of pipes/ cables etc. (b) getting the soil investigation done at a later data leading to delay in project execution | 1. Existing soil investigation reports & layout drawings, if available 2. Getting soil investigation & underground survey done, to the extent possible. | Rare (2) | Significant (3) | Possible (2) | 2x3x2=12 | L | Not necessary because of low risk |
| 8. | Non-availability of correct BQ | Delivery schedule is affected due to non-availability of BQ/ availability of incorrect BQ | BQ is sought from vendors / Existing BQ database | Rare (2) | Critical (4) | Possible (2) | 2x4x2=16 | L | Not necessary because of low risk |
| 9. | <i>Change order</i> | <i>Time and cost overrun is resulted due to change order</i> | <i>Study of site and available data before preparation of TS</i> | <i>Rare (2)</i> | <i>Minor (2)</i> | <i>Rare (4)</i> | <i>2x2x4=16</i> | <i>L</i> | <i>Not necessary because of low risk</i> |



(C) CONTINGENCY PLAN (CP)

| Sl. No. | Risk | CP | Responsibility | Time Frame | Resource Required | Linking procedure No. |
|---------|--------------------------------------|---|--------------------------------|------------|---|-----------------------|
| 1. | Errors in drawings of CET | Checking and approval of drawings by different persons (CP-1) | All concerned engineers of CET | Continuous | Checking as per authorization of personnel to check the drawing | P 8.3-19 |
| 2. | Protection of data/information in PC | Protection through regular back up of data (CP-2) | All concerned engineers of CET | Continuous | 1. Protection through regular back up of data 2. Having disaster recovery system | P 7.5-02 |

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