

TOP PROJECT NO. :  
CTCI PROJECT NO. :

JSEA STUDY REPORT  
EPC MAIN WORK  
FOR  
CFP CRUDE OIL TANK PROJECT

FOR FINAL

|      |                  |    |      |       |      |   |           |
|------|------------------|----|------|-------|------|---|-----------|
|      |                  |    |      |       |      |  Thai Oil Public Company Limited |           |
|      |                  |    |      |       |      |   |           |
|      |                  |    |      |       |      |   |           |
|      |                  |    |      |       |      |   |           |
|      |                  |    |      |       |      | CERTIFIED   |           |
| 0    | Issue For Final  |    |      |       |      | PROJ.   | DATE      |
| Z0   | Issue For Design |    |      |       |      | MGR.  |           |
| A    | Issue For Review |    |      |       |      |   | Rev.<br>0 |
| REV. | DESCRIPTION      | BY | CHK. | APPR. | DATE |   |           |

| วัตถุประสงค์การเรียนรู้และขอบเขตงาน (Study Objective and Work Scope) |  |
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| ggg  |  |

| HAZOP ATTENDEE SHEET & HAZOP COVER PAGE |                  |         |                    |  |  |  |  |  |
|---|------------------|---------|--------------------|--|--|--|--|--|
| No.                                     | Name             | Company | Date of attendance |  |  |  |  |  |
|   |                  |         | 05 Oct 2023        |  |  |  |  |  |
| 1                                       | Dungrat (TOP-XX) |         | X                  |  |  |  |  |  |
| 2                                       | Kuluwat (Dev)    |         | X                  |  |  |  |  |  |
|   |                  |         |                    |  |  |  |  |  |

| เอกสารอ้างอิง (Drawing & Reference) |               |            |               |         |
|-------------------------------------|---------------|------------|---------------|---------|
| No.                                 | Document Name | Drawing No | Document File | Comment |
|                                     |               |            |               |         |

| RECCOMENDATION STATUS TRACKING TABLE |      |    |                |        |                                     |
|--------------------------------------|------|----|----------------|--------|-------------------------------------|
| REF.                                 | Task | RR | Recommendation | Status | Action By<br>(Response & Signature) |
|                                      |      |    |                |        |                                     |

| การวิเคราะห์ความปลอดภัย อาชีวอนามัย และสภาพแวดล้อม ในการทำงาน   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|---|---|------------------------|-----------------------|--------|---------------------|---|--------------------------------------|---------------|---|----|----------------------|---------------------|--|-----------------|--|---------------------|--|--|---------------------|--|---------------|--|---|--|--|--|--|--------|--|------------------------|--|--|--|---|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|------------------------------|--|--|--|--|-----------------------|--|---------------------|--|---------------|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Job Safety and Environment Analysis (JSEA)  |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ชื่องาน (Task):   |  | xxxx HAZOP-2023-0000036   |   |                        |                       |        |                     |   | วันที่ทำการประเมิน (Date): xx/x/xxxx |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Note:   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ลำดับขั้นตอนหลัก<br>(Work step)   | ลักษณะ/กิจกรรมการทำงาน<br>(Task description) | อันตรายที่อาจเกิดขึ้น และอาจเกิดผลกระทบต่อบุคคล สิ่งแวดล้อม<br>ชื่อเสียง หรือทรัพย์สิน<br>(Potential Hazard and Consequence to PERA ) | อะไรคือสาเหตุที่ทำให้อันตราย อาจก่อให้เกิดผลกระทบต่อบุคคล สิ่งแวดล้อม<br>ชื่อเสียง หรือทรัพย์สิน เช่นอาจเกิดจาก คน อุปกรณ์ วิธีการ<br>หรือสภาพแวดล้อม เป็นต้น<br>(Possible cause to release the hazard and produce an incident) | CAT<br>(P/A/E/<br>R/Q) | Risk Assessment       |        |                     | ข้อปฏิบัติเพื่อลดผลกระทบจากอันตรายที่อาจเกิดขึ้น<br>(Recommendations) | ผู้รับผิดชอบ<br>(Action by)          | Residual Risk |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        | S                     | L      | IR                  |   |                                      | S             | L | RR |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.x   | 1.x  | 1.x   | 1.x   |                        |                       |        | X                   | X   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1   | Dungrat (TOP-XX)                             | z1  | 2.  |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.  | 1.   | 1.  | 3.  |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1   | Dungrat (TOP-XX)                             | z1  | 1.xx2   |                        |                       |        | TO                  | 11/3/2023 12:00:00 AM   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1.  | 1.   | 2.  |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2   | TOP CMDP-Jaruwat P.                          | 1x  | 1.xx  |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table><tr><td rowspan="7">ผู้จัดทำ (Attendees)</td><td colspan="2">Name (ชื่อ-นามสกุล)</td><td colspan="2">Title (ตำแหน่ง)</td><td colspan="3">ผู้ทบทวน (Reviewer)</td><td colspan="2">Name (ชื่อ-นามสกุล)</td><td colspan="2">วันที่ (Date)</td></tr><tr><td>1</td><td colspan="2"></td><td colspan="2"></td><td colspan="2">Safety</td><td colspan="2">10/19/2023 12:00:00 AM</td><td colspan="2"></td></tr><tr><td>2</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td>3</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td>4</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td>5</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td>6</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td rowspan="4">ผู้พิจารณาอนุมัติ (ถ้ามี): 1</td><td colspan="2"></td><td colspan="2"></td><td colspan="2">ผู้อนุมัติ (Approver)</td><td colspan="2">Name (ชื่อ-นามสกุล)</td><td colspan="2">วันที่ (Date)</td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2">AE or AGSI</td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr><tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr></table> |  |   |   |                        |                       |        |                     |   |                                      |               |   |    | ผู้จัดทำ (Attendees) | Name (ชื่อ-นามสกุล) |  | Title (ตำแหน่ง) |  | ผู้ทบทวน (Reviewer) |  |  | Name (ชื่อ-นามสกุล) |  | วันที่ (Date) |  | 1 |  |  |  |  | Safety |  | 10/19/2023 12:00:00 AM |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  | 5 |  |  |  |  |  |  |  |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  | ผู้พิจารณาอนุมัติ (ถ้ามี): 1 |  |  |  |  | ผู้อนุมัติ (Approver) |  | Name (ชื่อ-นามสกุล) |  | วันที่ (Date) |  |  |  |  |  | AE or AGSI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ผู้จัดทำ (Attendees)  | Name (ชื่อ-นามสกุล)                          |   | Title (ตำแหน่ง)   |                        | ผู้ทบทวน (Reviewer)   |        |                     | Name (ชื่อ-นามสกุล)   |                                      | วันที่ (Date) |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1  |   |   |                        |                       | Safety |                     | 10/19/2023 12:00:00 AM  |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 2  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 3  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 4  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 5  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 6  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ผู้พิจารณาอนุมัติ (ถ้ามี): 1  |  |   |   |                        | ผู้อนุมัติ (Approver) |        | Name (ชื่อ-นามสกุล) |   | วันที่ (Date)                        |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        | AE or AGSI            |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |  |   |   |                        |                       |        |                     |   |                                      |               |   |    |                      |                     |  |                 |  |                     |  |  |                     |  |               |  |   |  |  |  |  |        |  |                        |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |                              |  |  |  |  |                       |  |                     |  |               |  |  |  |  |  |            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

ภาคผนวก ก  
ข้อมูลและตารางอ้างอิงสำหรับการประเมินความเสี่ยง  
**APPENDIX A**  
**PHA -WORKSHEETS**

ตารางการประเมินความเสี่ยง ( Risk Assessment Matrix (RAM) )

|                 | โอกาสในการเกิดความเสี่ยง |             |           |           |
|-----------------|--------------------------|-------------|-----------|-----------|
| ระดับความรุนแรง | 4                        | 3           | 2         | 1         |
| 4               | มากที่สุด 4              | มากที่สุด 4 | มาก 3     | ปานกลาง 2 |
| 3               | มากที่สุด 4              | มาก 3       | ปานกลาง 2 | ปานกลาง 2 |
| 2               | มาก 3                    | ปานกลาง 2   | ปานกลาง 2 | น้อย 1    |
| 1               | ปานกลาง 2                | ปานกลาง 2   | น้อย 1    | น้อย 1    |

Risk Assessment Matrix : 4X4



## ภาคผนวก - PIDs / PFDs