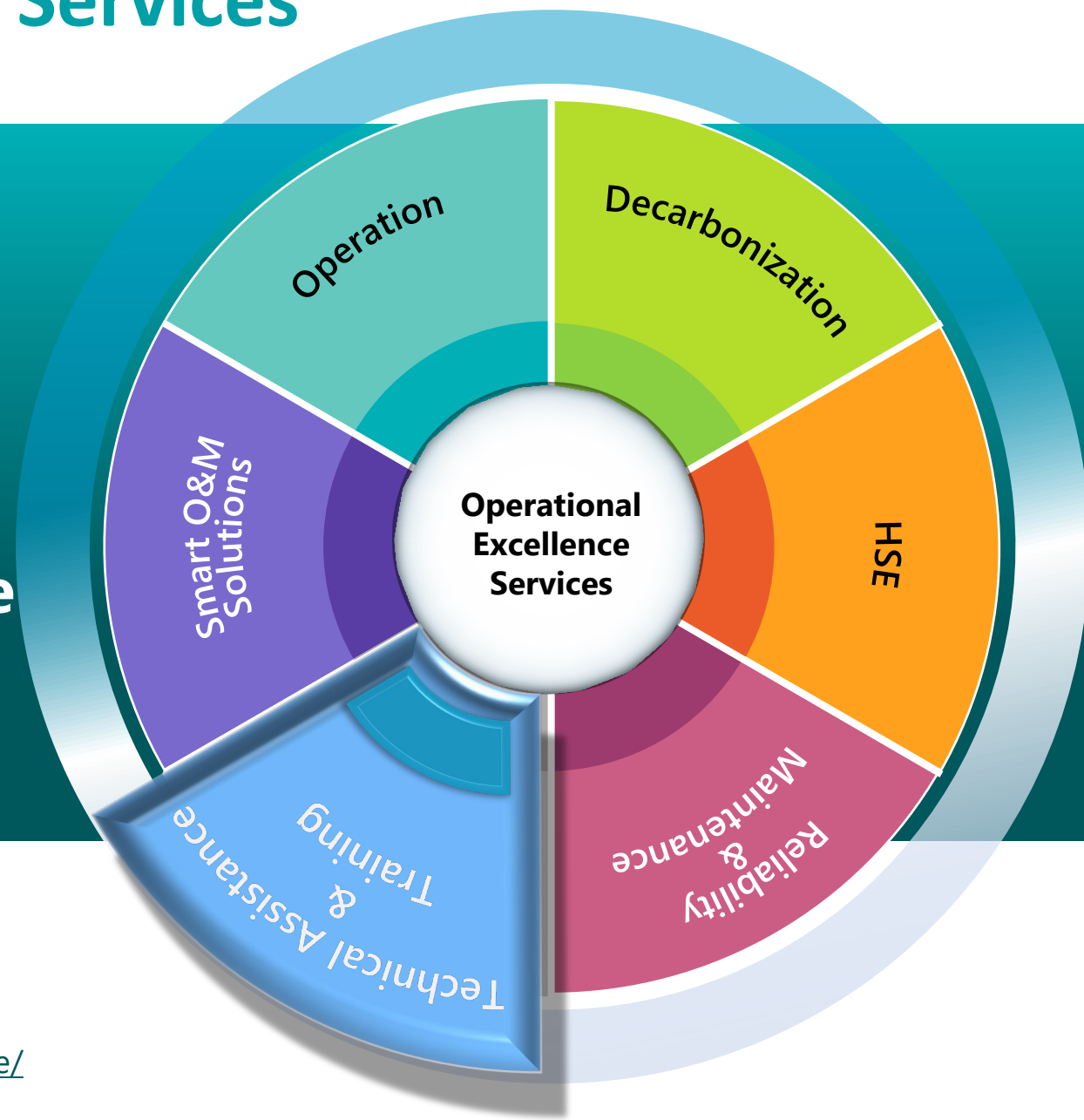




# Operational Excellence Services

## Technical Assistance & Training Asset & Operation Due Diligence



### Contact Us

 [Technology Inquiries | Contact Us | JGC HOLDINGS CORPORATION](#)

### Access to Our Homepage

 <https://www.jgc.com/en/business/epc/operation-maintenance/service/>

# Asset & Operation Due Diligence

## Do you have any of these issues?

- ☹ **Considering investment for operating assets**
- ☹ **Audit for operation and maintenance of operating assets**

## Focus Areas

- **Facility design and construction** in accordance with recognized and generally accepted engineering practices
- Implementation of **Process Hazard Analysis**
- Established **Operation Manual**
  - ✓ Startup and Shutdown
  - ✓ Normal operations
  - ✓ Emergency Operations
- Deployment of **safe work practices**
- **Written procedures** for maintenance, inspections and testing
- Rigorous **quality assurance** systems
- **Training and competency** management system

## Asset & Operation Management Framework

1. Management Leadership

2. Risk Assessment

4. Facility Design and Construction

5. Information & Documentation

### Maintenance

3. Management of Change

7. Mechanical Integrity

8. Contractors

9. Occupation Health and Safety

### Operation

6. Operation Procedure

10. Training

### Emergency Response

11. Incident Investigation

12. Emergency Planning and Response

14. Assessment & Improvement

# Asset & Operation Due Diligence

[Return to  
Technical Assistance  
& Training menu](#)

## Example of JGC's PSM Assessment Checklist

No.	Requirement	Guideline for Compliance	Observation	Opportunities / Comments
5.0	In accordance with the schedule set forth in [paragraph 3.1] of this section, the employer shall complete a compilation of <u>written process safety information</u> before conducting any <u>process hazard analysis</u> required by the standard. The compilation of written process safety information is to enable the employer and the employees involved in operating the process to <u>identify and understand the hazards</u> posed by those processes involving highly hazardous chemicals. This process safety information shall include information pertaining to the hazards of the <u>highly hazardous chemicals</u> used or produced by the process, information pertaining to the <u>technology</u> of the process, and information pertaining to the <u>equipment</u> in the process.	1. A procedure to manage PSI defined in the paragraph 2.1 through 2.3 should be developed. - Information applicable as PSI should be clearly defined in the procedure. - Management process of PSI, including roles & responsibilities of owners should be developed. - PSI should be periodically updated according to Management of Change processes. (Refer to Element-10)	Observations found during the interview will be described in this column.	
5.1	Information pertaining to the hazards of the highly hazardous chemicals shall include: i. Toxicity data; ii. Reactivity data; iii. Corrosivity data; iv. Thermal and chemical stability data; and vii. Hazardous effects of inadvertent mixing of different materials that could foreseeably occur. Note: Safety data sheets meeting the requirements of 29 CFR 1910.1200(g) may be used to comply with this requirement to the extent they contain the information required by this subparagraph.	1. <u>Material Safety Data Sheet (MSDS)</u> should be used to include the information. - All MSDS should be supplied from manufacturers and compiled. 2. When a contractor <u>brings</u> highly hazardous chemicals to the plant then the contractor shall show MSDS to the employer and obtain approval.	Improvement opportunities identified during the interview will be described in this column.	
5.2	Information pertaining to the <u>technology</u> of the process.	1. Most of <u>technology</u> information should be developed during the EPC phase and delivered from the EPC contractor.		

### Element 5: Information & Documentation

## Our Strengths

- Extensive, worldwide EPC project and maintenance experiences
- Experience in investment for operating assets
- Professional Operation & Maintenance Engineer Teams
- Asset & Operation Management (AOM) system based on OSHA PSM
- Experience in Due Diligence (DD) and audits for operating plants.

## Our Experiences

**O&M Due Diligence**

**3+ Cases**

**Audits for O&M**

**5+ Cases**