



## Agenda Report Details (With Text)

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**Title:** CENTRAL GENERATION PRESSURE VESSEL INTEGRITY RELIABILITY ASSESSMENT, PROJECT NO. PS20-05

**Sponsors:** Kathy Millea

**Indexes:**

**Code sections:**

**Attachments:** 1. Agenda Report, 2. CS-2021-1267BD Agreement

| Date      | Ver. | Action By            | Action                   | Result |
|-----------|------|----------------------|--------------------------|--------|
| 2/23/2022 | 1    | BOARD OF DIRECTORS   |                          |        |
| 2/2/2022  | 1    | OPERATIONS COMMITTEE | Recommended for Approval |        |

**FROM:** James D. Herberg, General Manager  
Originator: Kathy Millea, Director of Engineering

**SUBJECT:**

**CENTRAL GENERATION PRESSURE VESSEL INTEGRITY RELIABILITY ASSESSMENT, PROJECT NO. PS20-05**

**GENERAL MANAGER'S RECOMMENDATION**

RECOMMENDATION:

- A. Approve a Professional Consultant Services Agreement CS-2021-1267BD to Pond & Company for the Central Generation Pressure Vessel Integrity and Reliability Assessment, PS20-05, at Plant Nos. 1 and 2, for a total amount not to exceed \$235,133; and
- B. Approve a contingency of 23,513 (10%)

**BACKGROUND**

There are over 90 pressure vessels housed at the Central Generation Facilities at Orange County Sanitation District (OC San) Plant Nos. 1 and 2. The average age of these vessels is approximately 30 years old. The condition of most of these vessels are unknown. The purpose of this request is to provide a means to properly assess these pressure vessels. The assessment results will be used to formulate appropriate preventive maintenance activities and job plans and confirm current asset management strategies for repair and replacement.

**RELEVANT STANDARDS**

- Maintain a proactive asset management program
- Protect OC San assets
- Maintain a culture of improving efficiency to reduce the cost to provide the current service level or standard
- Provide a safe and collegial workplace

## PROBLEM

Pressure vessel integrity is paramount for ensuring occupational safety and related process availability. The Occupational Safety and Health Administration (OSHA) mandates the type and frequency of assessments for certain pressure containing equipment to ensure this safety. For other types of equipment, it is the responsibility of the employer to ensure that proper assessments are performed at appropriate intervals to ensure employee safety. Given the age and unknown condition of most of the current Central Generation pressure vessels, it is important that their condition is understood and documented.

## PROPOSED SOLUTION

Through analytical means, determine the "remaining safe and useful life" of the pressure vessels and related equipment, to reduce the likelihood of unplanned or premature failures by performing integrity and reliability assessments using industry-accepted inspection practices (e.g. API-510).

## TIMING CONCERNS

As the average age of these pressure vessels are about 30 years old and, for most, the conditions are unknown, it is prudent to assess these aging pressure vessels as soon as possible.

## RAMIFICATIONS OF NOT TAKING ACTION

Inaction will result in increased risk to employee occupational safety, catastrophic equipment failure, unplanned process interruptions; and could result in increased equipment repair costs, OSHA fines for non-compliance, etc.

## PRIOR COMMITTEE/BOARD ACTIONS

N/A

## ADDITIONAL INFORMATION

### Consultant Selection

OC San requested and advertised for proposals for Central Generation Pressure Vessel Integrity and Reliability Assessment, PS20-05, on September 23, 2021. The following evaluation criteria were described in the Request for Proposals (RFP) and used to determine the most qualified Consultant.

| CRITERION                                | WEIGHT |
|--|--------|
| Proposed Staffing & Project Organization | 20%    |

|                                     |     |
|-------------------------------------|-----|
| Qualifications & Experience of Firm | 20% |
| Work Plan                           | 30% |
| Cost                                | 30% |

One proposal was received on October 27, 2021 and evaluated in accordance with the evaluation process set forth in OC San’s Purchasing by a pre-selected Evaluation Team consisting of the following OC San staff: Engineer (Managing Project Engineer), Maintenance Supervisor, and two Lead Power Plant Operators. The Evaluation Team included one non-voting representative from the Purchasing Division.

The Evaluation Team scored the proposal on the established criteria as summarized in the table below:

|   | Firm           | Proposed Staffing & Proj Organization (Max 20) | Qualifications & Experience of Firm (Max 20) | Work Plan (Max 30) | Cost (Max 30) | Total Score (Max 100) |
|---|----------------|--|--|--------------------|---------------|-----------------------|
| 1 | Pond & Company | 19   | 19   | 26                 | 30            | 94                    |

Based on the above scoring, and overall specializations and experience, Pond & Company was selected as a qualified Consultant. The selected firm was found to have: (1) a highly qualified staff, exceeding the desired staff qualification levels; (2) a robust and relevant portfolio of prior comparative work experience, ensuring proper job execution; and (3) an extremely safety focused work plan.

Fee Negotiations

Staff conducted negotiations with Pond & Company to streamline the requirements of the Scope of Work. The type of pressure vessels that would be included in the assessments, assumptions used for the estimated level of effort, and the proposed approach to meet the goals and objectives for the project were refined, with the results shown below.

|           | Original Fee Proposal | Negotiated Fee |
|-----------|-----------------------|----------------|
| Total Fee | \$478,452             | \$235,133      |

Based on the above, staff has determined that the final negotiated fee is fair and reasonable for the level of effort required for this project and recommends approval of the Professional Consultant Services Agreement to Pond & Company.

**CEQA**

This is not a project as defined by the California Environmental Quality Act (CEQA), therefore CEQA does not apply.

**FINANCIAL CONSIDERATIONS**

This request complies with authority levels of OC San’s Purchasing Ordinance. This item has been budgeted in the

FY21/22 Budget Update Book. (Line item: Operations and Maintenance Capital Program, Page A-8).

| <u>Date of Approval</u> | <u>Contract Amount</u> | <u>Contingency</u> |
|-------------------------|------------------------|--------------------|
| 02/23/2022              | \$ 235,133             | \$ 23,513 (10 %)   |

**ATTACHMENT**

*The following attachment(s) may be viewed on-line at the OC San website ([www.ocsan.gov](http://www.ocsan.gov)) with the complete agenda package:*

- Professional Consultant Services Agreement