



## Job Site Safety Analysis (1/2)

Employees: Ariana Correia, Amber Dellacqua, Vanessa Huerta, Shraddha Zina

Date: 05-15-2019

Job: ROV Operation

| # | Task                                                                                               | Hazard                                                                                                                                                                              | Control Measure                                                                                                                                                                                                                                                              | Person(s) Responsible          |
|---|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| 1 | Set up Control Station                                                                             | 1A: Potential damage to mission-critical equipment through mishandling<br>1B: Potential injury to extremities of poolside teams via dropping or mishandling equipment .             | 1A-1: Wrap all sharp objects.<br>1B-1: Ensure equipment is mounted.<br>1B-2: Wear safety goggles to prevent injury                                                                                                                                                           | Amber Dellacqua, Shraddha Zina |
| 2 | Connect Tether to ROV<br>Check over all connections for possible hazards or MATE safety violations | 2A: Potential tripping due to unsecure wiring or other obstructions<br>2B: Potential damage to mission-critical equipment through mishandling or electrical discharge.              | 2A-1: Tether and other cables are mounted accordingly and out of way<br>2B-1: Keep items turned off until all connections are ensured                                                                                                                                        | Ariana Correia, Shraddha Zina  |
| 3 | Fill Air Compressor                                                                                | 3A: Potential mishandling by user.<br>3B: Pressure regulator setting above 40PSI                                                                                                    | 3A-1: Ensure that the air compressor regulator is set to 40PSI                                                                                                                                                                                                               | Vanessa Huerta                 |
| 4 | Put ROV into water                                                                                 | 4A: Potential injury to poolside crew through falling into competition pool or via possible electrocution.<br>4B: Potential damage to ROV frame and systems via accidental dropping | 4A-1: Wear non-slip shoes and inspect pool area for trip hazards before launching.<br>4A-2: Ensure power switches are off. Ensure all connections are properly connected.<br>4B-1: Ensure all crew members are extremely cautious when handling ROV, including tether cables | Vanessa Huerta                 |



## Job Site Safety Analysis (2/2)

Employees: Ariana Correia, Amber Dellacqua, Vanessa Huerta, Shraddha Zina

Date: 05-15-2019

Job: ROV Operation

| # | Task                      | Hazard                                                                                                                                                | Control Measure                                                                                                                                                                                                                            | Person(s) Responsible                                          |
|---|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 5 | ROV Test                  | 5A: Potential damage to ROV systems through voltage overload<br>5B: Potential damage to ROV thrusters through running aquatic thrusters in open air   | 5A-1: Ensure power converter is dialed to correct voltage (12v)<br>5B-1: Ensure ROV thrusters are not run at high speeds while in open air.                                                                                                | Ariana Correia, Shraddha Zina                                  |
| 6 | ROV Operation             | 6A: Potential strain on ROV<br>6B: Potential tripping hazard to poolside members<br>6C: Potential electrical hazard if housing is not properly sealed | 6A-1: Ensure the tether feeds into the pool properly<br>6B-1: Ensure poolside members procede feeding the tether with caution<br>6C-1: Ensure the housing is properly sealed, no water inside, properly lubricated, flange in all the way. | Vanessa Huerta, Shraddha Zina                                  |
| 7 | ROV Retrieval             | 7A: Potential back strain, cuts, drowning, and electrocution                                                                                          | 7A-1: Kneel down, stay low at the edge of the pool. Make sure all power is shut off. Never launch alone                                                                                                                                    | Vanessa Huerta                                                 |
| 8 | Packing and Disconnection | 8A: Potential damage to mission critical equipment if mishandled<br>8B: Potential injury to handler                                                   | 8A: Ensure that equipment is organized and returned to original mount.<br>8B: Carefully and safely take time                                                                                                                               | Ariana Correia, Amber Dellacqua, Vanessa Huerta, Shraddha Zina |