CIKARANG POWER STATION PROJECT
Babelan, Bekasi, Jakarta, Indonesia

No. 007

Method Statement
Of
Sandblasting

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I. PURPOSE
This procedure was prepared as guidance blasting work to ensure the work is carried out in accordance with the requirement and in accordance with safety standards have been determined.

II. SCOPE
This procedure is required to be considered, understood and implemented by all the blaster that will work on all areas of work that has been specified by the user / client.

III. GENERAL REQUIREMENT
Sandblasting job is a job that has the potential hazards in the high category, there are several requirements that must be adhered to, among others, such as:
1. Blaster should be someone who really competent. This can be proved by experience in blasting work.
2. Blaster must understand the importance of using PPE before doing work activities, especially PPE used in work such as sandblasting, Blasting Helmet and Gloves Blasting.
3. Work instructions with the technical specifications of engineering or supervisor in the field.
4. There is a hazard risk assessment and emergency response team from HSE
5. Blasting Equipment to be used must pass the feasibility test proved by a certificate, and maintenance checks.
6. Mandatory checking of safety equipment such as Blasting Deadman Valve c/w Bi-Line Hose, Safety Valve on Sand Pot, The connections are already in the PIN hose and tied with Web Check.
7. PPE or personal protective equipment must be used in addition to standard PPE use, such as:
   - Blaster Helmet c/w air intake
   - Gloves
   - Coverall for Blaster

IV. GENERAL PROCEDURES
Sandblasting job is an important part because it affects 85% paintwork later. Therefore, it should be noted correctly every step of progress set out in the following procedure:

4.1 Identifying Environmental Conditions
Is the first step that must be carried out by a blaster. There are several requirements that must be obeyed environment, among others, are as follows:
   a. Surface Temperature
      Surface temperature must be 3 degrees above the dew point temperature. The surface temperature can be determined by using a Magnetic Surface Thermometer.
   b. Dew Point
      The dew point is a certain temperature where the humidity turns into water vapor. Dew point values can be determined by using the Dew point calculator.
   c. Relative humidity
      Value humidity should be below 85%. The humidity can be determined using a sling psychrometer
   d. Direction and wind velocity
      Blasting activities are not recommended when the wind speed exceeds 25 km/h.
4.2 Determining The Level of Early Rust
Determining the level of early rust aims to make it easier to compare the results after the clean surface and before the clean surface is adjusted to the required level of cleanliness according to SSPC-SP-10 or SIS- 05 59 00-Sa 2.5.

4.3 Equipment Required
   a. Air Compressor Airman PDS 390S
   b. Sand pot
   c. Wind hose size 1\(\frac{1}{4}\), 1”, and coupling
   d. Paint Pot size 10 liter include: hose \(\frac{1}{4}\)”, 25 m length, spray gun
   e. Helmet Blasting c/w Blaster Coverall
   f. Nozzle Spray

4.4 Preparation Equipment
   1. Prepare all the necessary equipment in accordance with the specifications / cleaning methods requested by supervisor (solvent cleaning, hand tool, power tool, or blasting)
   2. Make sure all the equipment is good and decent before use
   3. Special to the compressor, blasting pot, hose, must be complete with technical data, name tag, and the tag has passed the test of the feasibility of the maintenance team.
   4. Check Function of Deadman Valve, make sure it works properly
   5. Check the hose connection, check the condition of web chain, make sure in good condition and safe
   6. Check Hose blasting condition, replace if leaks are found.
   7. Nozzle Check, replace if found damage in nozzle lip.
4.5 Cleaning With Dry Abrasive Blasting

Cleaning is done by utilizing the abrasive material as a medium that is fired at the surface to remove contamination on the surface of metal. Abrasive cleaning material consists of many kinds like, silica, copper slag, grit still, ps ball and others. Selection of material type is determined by the user to suit the wishes and conditions in the field.

A. Surface

Before the cleaning is done, all surfaces should be clean of various types of contamination, such as rust, oil, grease, salt, mud or other debris.

B. Electrical and Instrument

- Instruments that stand out, the meter, the name plate, control valve stems, controllers, code stamps, etc., must be protected to keep from damage during the sand blasting process takes place.
- Surface equipment and adjacent piping must be protected from media blasting.

C. Mechanical, Piping and Fittings

- Valves and items - other items that can not be effectively done sandblasting and painting of primer after in pairs or do not have an approved paint system may impose on blasting and so does not affect the separate primer painting system that has been approved.
- Surface that is the result of machining and screw must be protected from the damaging effects of sandblasting.

D. Cleaning Sandblasting.

Standards for the cleaning, the formation of a surface profile and the system must be in accordance with the standard painting metal and specification: SSPC–SP-10 (Steel Structure Painting Council). Specifications Inspector and painting supervisor must inspect each steps of work performed, measures job is:

- Blasting to do when the weather is dry / hot. Near white blast is one method of surface preparation for steel for painting by removing the mill scale, rust, rust major / severe and other impurities using abrasive impulse which passes through the nozzle.
- Blasting is not allowed if the metal surface is less than 30°C above the dew point or relative humidity greater than 85%.
- Sandblasting dried using a pressure nozzle and the air that passes through the material as a dry abrasive blasting media.
- Surface, if blasting dry, must be in the brush with brush cleaner made of hair, bristle or fiber, or blown with air from a compressor (where the content of water and oil have been removed) or cleared with vacumm with the aim to remove any trace of product blasting from all over surface material.
- The air pressure used for blasting nozzle should be clear of water or oil can be damaging. Separator and adequate traps should be prepared.
- Use a nozzle in accordance with Pot Blasting capacity and level of cleanliness desired.
- Minimal manpower to work Blasting are: Supervisor, Blaster, Compressor 2 Operators and Helper.
• Check the condition of blasting set, make sure the safety valve, handle dead man can function properly. Masukkan Abrasive Material terus menerus (continue) sampai proses blasting selesai, jangan terus memasukkan material jika blasting pot sudah penuh.

• Cleaning blasting residues must be carried out to ensure no damage is caused, either partially or in whole.

• If still found rust after blasting, the blasting is recommended for repeated before in the paint. The surface is clean must be free of oil, grease and other impurities.

• Blasting effective distance between the nozzle and the surface is 35 cm max, meant that the results achieved are maximum level of cleanliness.

**DANGER !!!!**

- PRESSURE BLASTING OUT NOZZLE IS 105 psig
- SPARKS OF ABRASIVE MATERIAL, PAINT AND RUST chipped MEMBERS OF THE BODY CAN, DO SURGERY IMMEDIATELY IF A MEMBER OF THE BODY OF ABRASIVE MATERIAL DIRECTLY
- POTENTIAL IS STATIC ELECTRICITY IN KOMPRESSOR

**PREVENTION**

- MAKE SURE NO OTHER THAN OTHERS INVOLVED IN RADIUS 4 MTR
- REPORT TO SUPERVISOR, IF FOUND INCORRECT things, eg LOSS NOZZLE, BLASTINGPOT LOSS, ETC.
- PPE USE APPROPRIATE AND TRUE
- USE AND WEAR HELMETS BLASTING BLASTING
- WORK CARRIED OUT UNDER THE DIRECT CONTROL SUPERVISOR
V. ATTACHMENT

Equipment Photograph:

Air Compressor Airman PDS 390S

Nozzle

Paint Pot

Helmet Blasting

Workshop for Sandblasting Area

Sandpot

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Cikarang Power Station Project, Babelan

PT. Deluge Engineering Construction