Investigation And Root Cause Failure Analysis (RCFA) Of Explosion To Furnace Boiler Unit #4 Of PLN Unit Tarahan, Lampung-Indonesia = Investigasi Dan Analisa Penyebab Kerusakan Terjadinya Ledakan Pada Furnace Boiler Unit #4 PLN Unit Tarahan, Lampung-Indonesia

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Abstrak

Pada tahun 2019, PLN Unit Tarahan melaksanakan inspeksi dan pemeliharaan Boiler Unit #4dengan memperbaiki dan mengganti beberapa komponen dari Boiler. Pekerjaan rehabilitasi pelaksanaan boiler unit #4 dilaksanakan pada awal Maret 2019 dan diperkirakan akan berlangsung selama 3 bulan. Pada saat pekerjaan penggantian refraktori pada furnace, khususnya pada saat tahap pekerjaan Refractory Dry Out (RDO) terjadi insiden ledakan pada Boiler Unit #4 yang menyebabkan kerusakan pada peralatan boiler. <font color="#000000" face="Times New Ro Melanjuti terjadinya insiden ledakan boile, PLN menunjuk P2M-UI untuk melaksanakan investigasi untuk mennetukan penyebab kerusakan dan menganalisa dan memetakan potensi penyebab yang paling mungkin menyebabkan terjadinya ledakan pada Boiler Unit #4 PLN Unit Tarahan. Salah satu tujuan utama dari investigasi ini adalah untuk memenuhi persyaratan asuransi terkait pelaksanaan proses klaim yang diajukan. Investigasi yang telah dilaksanakan adalah dengan mengunakan data dari seluruh proses instalasi dan implementasi refraktori pada pekerjaan RDO, melakukan inspeksi fisik terhadap peralatanyang digunakan pada saat pekerjaan RDO dimana terjadi insiden ledakan boiler, membuat simulasi dan analisa terhadap kondisi operasional sebelum terjadinya ledakan yang dapat memberikan kontribusi penyebab terjadinya ledakan, dan tata-laksana pekerjaan RDO oleh kontraktor. .....PT Perusahaan Listrik Negara (Persero) is a State-Owned General Electricity Company in Indonesia that provides electricity across the country. PLN has main asset of Coal Fired Power Plant located at Tarahan in Lampung, Sumatera, Indonesia has two power supply trains consisting of Boiler Units #3 and Unit#4 with maximum capacity for each train is 100 Mega Watt. The two identical Boilers (Steam Generator) at the Power Plant were manufactured in 2007 by ALSTOM POWER INC and operations were commenced the same year. In 2019, The PLN Tarahan carried out inspection and maintenance to Boiler Unit#4 by repair and replace some components of the boiler. The Unit #4 boiler rehabilitation work was carried out in early March 2019 for approximately 3 months. During the Refractory Furnace replacement work at the Refractory Dry Out stage, an explosion incident occurred at boiler unit #4, causing some damage to the boiler equipment. Following the explosion incident, PLN have appointing P2M-UI to perform investigation to establish the Root Cause and Failure Analysis (RCFA) to analyze and map the potential causes (most causes) of an explosion in the PLN Tarahan Unit #4 boiler. One of the main purpose of this investigation is to fulfill insurance requirement for claim process. Investigation has been performed by utilising data from the whole process of refractory installation work and the implementation of the Refractory Dry Out (RDO) works. The contractor that performed RDO works is a local company namely PT Rakata Heat. The investigation mainly performed by examining physical inspection to the equipment that was utilised for RDO works that the explosion incident occurrred, simulate and analyze the operating condition before the explosion that contribute to the cause of the explosion, and the workmanship of the contractor for the RDO

Works. This report related with Loss Adjuster work to identify the Root Cause Failure Analysis of the loss incident which is required for insurance claim process and settlement. A loss adjuster is a claims specialist appointed and paid by an insurance company to investigate a complex or contentious claim on their behalf. Loss adjuster is responsible for establishing the cause of a loss and to determine whether it is covered by the subject Insurance policy.