

SIKA AT WORK

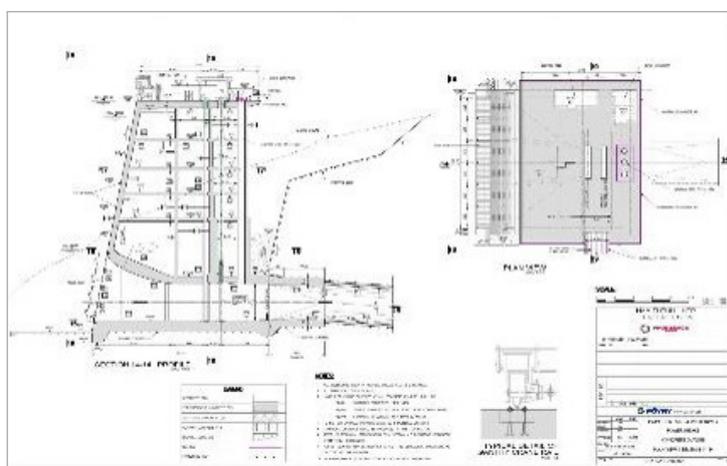
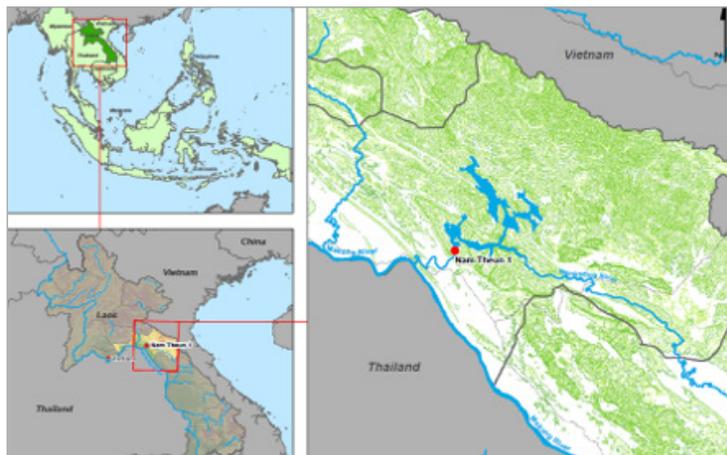
HYDRO POWER PROJECT NAM THEUN 1 HPP, LAOS PDR

KPM EXPORT, LAOS, TM CONCRETE

BUILDING TRUST



HYDRO POWER PROJECT NAM THEUN 1 HPP, LAOS PDR



PROJECT DESCRIPTION

The 650 MW Nam Theun 1 HPP is located at Nam Kading River, approx. 33 km upstream of its confluence with the Mekong River and 270 km from Vientiane in Central Laos (Bolikhamxai province).

The main structure of this project is the 177 m high curved gravity RCC dam that supports a centrally located 6 bays gated crest spillway with a conventional concrete chute and flip bucket capable to spill a flood of 23,500 m³/ located in a narrow gorge with reasonable geological conditions.

The powerhouse is located on an excavated platform on the left bank of the river, about 450 downstream of the dam with 2 turbine generator units located in deep circular shafts and a separate pressure (tunnel/shaft) waterway system for each unit, to be driven through the left abutment of the dam from a large self-starting outdoor power intake located upstream of the dam. The inherent advantage of this solution is because the powerhouse is separate from the dam site, it allows works to progress on various locations at the same time with far less disruption of construction works during the high-water periods.

The diversion tunnel located on the right bank is designed to only pass the design floods of the Nam Kading River during the dry season while allowance is made for overtopping of the two cofferdams and the dam construction site during the high floods of the rainy season.

Project name: Nam Theun 1 HPP

Construction year: 2015-2021

Location: Pakkading, Bolikhamxay, Lao PDR

- Located in central Laos
- Last HPP in the Nam Theun, Nam Kading/Theun River cascade
- 33 km upstream the confluence of Mekong River and Nam Theun River
- 220 km from Vientiane and 6 km from main road No.13

PROJECT REQUIREMENTS

Nam Theun 1 HPP will be the highest RCC curved gravity dam in Laos PDR as of today. The Concrete volume of the Main RCC dam is expected to be close to 4 million m³. Sika Thailand has been active in this project since the beginning of the EW2 (Early Work 2) by supplying shotcrete admixtures to Right Tunnelling (Thai) from November 2015 until January 2017 to build the Diversion Tunnel.

Later Sika Thailand was called for solutions during the tendering phase of the Contract A by several International Companies bidding for this project. Since Sika Thailand was called for solutions during the tendering phase of the Contract. Later, Sika Thailand who award be main supplier of construction chemical materials supplied to an International Companies main contractor build up for this project.

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SIKA SOLUTION

Sika Thailand proposed the supply of the main concrete admixtures by the flexibag concept. This proposal was well accepted by the client as such concept besides to be economical, limits the waste of emptied packing on site. Thanks to Hydro Power Projects reference regarding the supply of waterbars in Lao, Sika Thailand secured the supply of special and high end waterstops from Sika Greenstreak and Sika Germany (Tricosal). Sika Thailand also supply other Sika product for finishing work such as Sika Flooring, Refurbishment ,and Sealing & Bonding products.

TM Concrete

Plastiment® TM 28
Sigunit® L53 TH
SikaPlast® 204 TH
Sikament® 520
SikaFiber® Force PP48
Sika® Separol® W-398 C
Antisol® E
Antisol® S

TM Waterproofing

Sika® Greenstreak
Sika® Greenstreak 714
Sika® Greenstreak 719
Sika® Greenstreak 905
Sika® Greenstreak 958
PVC Waterstop
Sika® Elastomer FM 500
SikaFuko® VT 2

TM Sealing & Bonding

Sikaflex® PRO-3 WF
Sika® Backing Rod
Sika® Joint Filler

TM Flooring

Sikafloor®-3 QuartzTop
Sikafloor® ColourSeal
Sikafloor® ProSeal-22
Sikafloor® 264 HC
SikaCor® VEL TH

TM Refurbishment

SikaGrout® 214-11 TH
SikaGrout® 212 HP TH
Sika® MonoTop®-412 TH
SikaRep® S
Sika Latex®
Sikadur®

PROJECT PARTICIPANTS

Project owner: Nam Theun 1 Power Co.,Ltd.
Architect, Engineering & Consultant: AFRY
Contractor: CMC, ITD, SONG DA Joint Venture, Sino Hydro Corporation

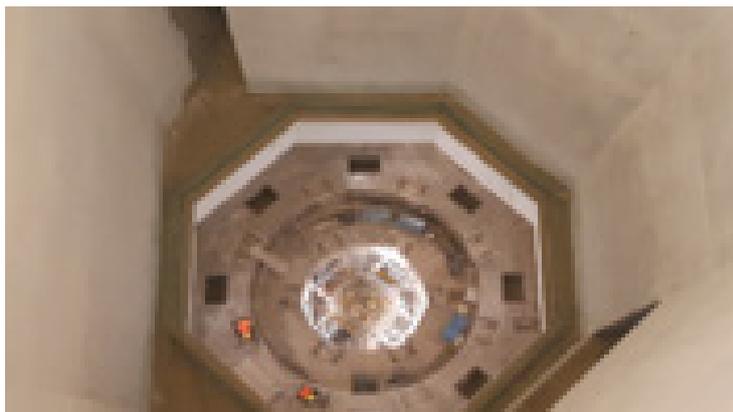
SIKA ORGANIZATION

KPM (Export), Target Market Concrete, Sika Thailand

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Our most current General Sales Conditions shall apply. Please consult the Data Sheet prior to any use and processing.



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