SCHEDULE 6-6

Description of Supporting Infrastructure

The supporting infrastructure of the Wuskwatim Generating Station will include Construction Power Services, Construction Camps and Work Areas, Service Road and the Access Road and the Stage I and II Cofferdams. This supporting infrastructure is described generally below.

Construction Power Services

Power required for the construction of the Wuskwatim Generating Station will be provided by pre-building one of the station's permanent 230 kilovolt (KV) transmission lines from Thompson to the station. The transmission line will terminate at a compact, modular, construction power substation located on the construction site, just north of the proposed switching station.

Prior to the construction of the power line, a self contained diesel generator will be supplied to support the set-up activities.

Initial Construction Camps and Work Areas

Self contained, temporary start-up camps will be required for the construction of infrastructure facilities. The start-up camp at the Wuskwatim Generating Station site will consist of mobile modular structures likely located on the parking lot of the camp area. The temporary start-up camp will include water containers, holding tanks for the collection of sewage waste and sullage pits to which Grey water may be routed.

Access Road

The Access Road will be designed to current Manitoba Transportation and Government Services provincial road design standards. The width of the road will be designed to accommodate anticipated truck traffic.

The Access Road traverses eight stream crossings. The stream crossings will consist of single or double corrugated metal pipe culverts. No bridge structures are required.

Main Construction Camp

(a) Main Construction Camp (Generally)

The Main Construction Camp will be located at the Wuskwatim Generating Station site and will accommodate up to a 625 person peak construction work force, as well as provide other construction support facilities. The facilities at the camp will be manufactured to meet the latest codes and standards.

The camp facilities will include the following: a kitchen/diner complex, a chapel, a recreation complex including a gymnasium, a beverage hall/café, a garage and fire truck for the volunteer fire department, a first aid building and ambulance, an uncontrolled helicopter landing area, a communications system, a commissary and recreation fields for baseball and soccer.

(b) Water Treatment and Distribution

The Main Construction Camp will have a potable water treatment plant facility composed of a tube settling packaged plant containing flocculation, coagulation, sedimentation, filtration and chlorination, located to the west of the camp area. The water will be stored in reinforced concrete water storage chambers (approximately 630,000 litres) and the remaining waste-water from the water treatment will be temporarily stored in a separate equalization chamber. The water treatment facilities will house a distribution pump system consisting of three electric pumps and a fire pump system.

The raw water pump house will be located near Wuskwatim Lake. The intake pipe will extend approximately 115 metres into the lake from the shore.

The water distribution system will be buried, and primarily bare pipe, but will use a recirculation system and heating to prevent freezing.

(c) Sewage Collection and Treatment

The sewage treatment facility (lagoon) will be a two cell sewage lagoon. The lagoon will be operated in accordance with provincial regulations. The lagoon will be fenced off, with a gate to be located on the access road approaching the sewage treatment facility. Final discharge will be through a gravity outfall ditch into the Burntwood River.

(d) Waste Collection and Disposal

Waste will be disposed of at a new permanent waste disposal site or by haulage from a transfer station to an existing permitted waste disposal site in Thompson. Temporary storage bins will be maintained in a secure location to prevent intrusion by wildlife.

Manitoba Hydro Work Area

The Manitoba Hydro Work Area will contain an engineering office, a warehouse storage building and yard, a fuel storage and vehicle refueling facility, field offices, a soils and concrete laboratory and a maintenance building. A helicopter landing area will be located close to the access road near the site’s main security gate and immediately opposite the Manitoba Hydro Work Area.

Contractor's Work Area

The Contractor's Work Area will generally contain relocatable modular buildings, storage facilities, maintenance shops, a fuel storage and vehicle refueling facility, toilet facilities, a concrete batch plant, an aggregate processing area, a carpenters' shop and a precast concrete yard. In addition, a magazine for storing explosives will be located away from the work and camp areas, in accordance with provincial blasting regulations.

Service Roads

All weather service and haul roads will be developed to provide access to construction equipment between the construction areas, the borrow areas and the Excavated Materials Placement Area. The precise layout and extent of these haul roads is to be determined subject to the construction methodology of the contractor.

Stage I and II Cofferdams

The Stage I and Stage II Cofferdams are temporary structures constructed out of a specific combination of rock fill, clay and granular materials to allow construction of the various structures in safe and dry working conditions.

The first step is to build the Stage Ia Cofferdam at the head of the chute on the north side of the river between the central island and the north shore. The upstream Stage I Cofferdam will be constructed between the north shore above Taskinigup Falls and the central island. To prevent erosion, the Stage I Cofferdam will include a rock fill deflector groin adjacent to the main flow channel at Taskinigup Falls and the upstream slope will be protected by means of a layer of riprap.

The downstream Stage I Cofferdam will be constructed at the downstream end of the chute on the north side of the river and will consist of double rock fill groin sections.

There are both upstream and downstream Stage II Cofferdams. The upstream cofferdam will be constructed between the central island, above Taskinigup Falls, to the south shore. It will consist of a single rock fill groin, faced with granular transition and impervious zones. To prevent erosion, a rock fill spur will be built on the south shore and the upstream slope will be protected by means of a layer of riprap. The downstream cofferdam will be constructed between the south side of the powerhouse discharge channel and the south shore. It will consist of a simple single rock fill groin with granular transition and impervious zones on the downstream face and a layer of riprap.