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Current profile of NORM conventional mining and milling facilities in Brazil

In addition to nuclear facilities, the National Nuclear Energy Commission (CNEN) also acts in the control of mining and milling facilities not related to nuclear fuel cycle, but in which the ore contains uranium and/or thorium associated with these substances in such quantities that make it necessary compliance with safety and radiological protection requirements. Within this scope of action, CNEN currently monitors 54 processes, including operating facilities, in pre-operational phase and that with temporarily suspended activity. Thirty-eight (38) operating facilities have their classification defined by CNEN, of which 30 have total activity concentration of radionuclides from the natural series of uranium and/or thorium higher than 10 Bq/g and must follow the safety and radiological protection requirements established in the CNEN NN Standard 4.01. Most of these facilities are located in the North (9) and Southeast (13) regions of Brazil and are classified, according to the gradation of potential risk, in Categories I (10) (more restrictive) and III (15) (less restrictive). Eight (8) facilities were characterized as exempt from regulatory control, but are continuously monitored by CNEN, since the exemption criterion related to the activity concentration needs to be measured during a period of operation of 03 years or if changes on materials or process are reported. Of the sixteen (16) facilities not classified by CNEN, only seven (7) are currently operating, 3 of which are in definition by CNEN, one (1) was preliminarily exempt from regulatory control and three (3) are in the step of providing information at CNEN. Nine (9) facilities are not currently operating, of which seven (7) are in the pre-operational or project phase (three preliminarily classified in Category II) and two (2) have suspended activities.

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