In a reinsurance contract, a reinsurer promises to pay the part of the loss faced by an insurer in exchange of receiving a reinsurance premium. However, when the promised indemnity exceeds the total of the reinsurance premium and the reinsurer’s initial capital which is determined by the value-at-risk (VaR) of its promised indemnity, the reinsurer may fail to pay the promised amount or default may occur. In the presence of regulatory initial capitals and counterparty default risks, we investigate optimal reinsurance designs from an insurer’s point of view and derive optimal reinsurance strategies that maximize the expected utility of an insurer’s terminal wealth or minimize the VaR of an insurer’s total retained risk.