Yards Creek Pumping [SPS]

- **Condition:**
  - Yards Creek pumped storage generation facility in pumping mode and
  - Outage of the Portland to Greystone (S1007) 230 kV line (or) Outage of the Bushkill to Kittatinny (1019) 230 kV line

- **Previous Result:**
  - Potential overload of the Portland to Kittatinny (V1010) 230 kV line

- **Current Result:**
  - No overload on the Portland to Kittatinny (V1010) 230 kV line

- **Existing Procedure:**
  - When Yards Creek pumped storage generation facility is in pumping mode, the SPS is armed.
  - Once the SPS is armed if the actual flow on the V1010 230 kV line exceeds the applicable emergency rating (Winter/Summer), a Yards Creek pump will trip at 60, 120 & 180 seconds until either the V1010 230 kV line flow is below the applicable emergency rating or all pumps have been tripped.

- **System Changes**
  - Portland - Kittatinny (V1010) 230 kV line rating increased in 2012
  - Susquehanna-Roseland 500 kV line constructed in 2015
  - Portland generation (401 MW) deactivated in 2015

- **Proposed Procedure:**
  - Retire Yards Creek Pumping [SPS] and remove from PJM Manual 03: Transmission Operations
Area Major Transmission Facilities

Yards Creek Special Protection Scheme
Yards Creek SPS opens the 230 kV breakers at Yards Creek (Unit 1, 2, & 3)
To mitigate overload concerns on the Portland – Kittatinny ‘V1010’ 230 kV line during times of Yards Creek hydro in pumping mode, when armed and the actual flow on the ‘V1010’ line exceeds emergency ratings (Winter/Summer) a Yards Creek pump will trip at 60, 120 & 180 second intervals until either the line flow is below the emergency rating or all pumps have been tripped.

Last Activation date – None in last 5 years

Retire Yards Creek Pumping excerpt from the PJM Manual 3
Proposed SPS Retirement

• Based on present and future system conditions the retirement of the Yards Creek Pumping SPS is being recommended.

• Primary drivers of proposal to retire SPS
  • Portland - Kittatinny (V1010) 230 kV line rating increased in 2012
  • Susquehanna-Roseland 500 kV line constructed in 2015
  • Portland generation deactivated in 2015
    • 401 MW of Generation
Questions?