Operating a boiler like driving a car

Driving a car can be as simple as turning the ignition on. A boiler can be operated just by hitting the on switch. However just like making sure there is gas in the car a whole host of things need to occur before a boiler can be operated safely. The boiler needs to be ready for service which means it has to be buttoned up with all openings closed and valves that need to opened are open. Gas is needed to operate a car and water is needed to operate a boiler so making sure the proper water level in the boiler is important. Once the proper water level is achieved then the ignition or start switch can be turned on. When this happens a host of items must occur before the boiler will start. A boiler purge is initiated and when complete the boiler will idle down before lighting off. These steps can be analogous to warming up a car. Once the boiler is firing it will speed up to a point where it meets a set point and from there it will modulate. This compares to when you hit the gas in a car to get it up to speed and then cruise down the highway. You may add more or less gas to maintain your speed. Safely driving a car requires anticipation – looking down the road, in the rear view mirror and to both sides. A boiler operator should always be thinking multiple steps ahead. What are the steam users (production) doing? Are they speeding up or slowing down? Are they having mechanical issues which would affect production and ultimately steam usage? A safe and responsible boiler operator should always be anticipating what is occurring and take steps to mitigate any changes that are occurring.