Here's the instantiated safety case for the GPCA system, depicted in a hierarchical tree format:

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Goal (G1, Operational safety is verified in GPCA system)

|- Strategy (S1, Argument over the satisfaction of all specs over GPCA system)

| |- Context (C1, All specs are given by spec.allInstances())

|- Goal (G2, All operational hazards are mitigated)

| |- Strategy (S3, Argument over operational hazards)

| |- Context (C2, Operational hazards are given by operational\_hazard.allInstances())

| |- Goal (G3, Overinfusion is mitigated)

| | |- Strategy (S4, Argument over the applied scenarios of Overinfusion)

| | |- Context (C3, All related scenarios are given by operational\_hazard)

| | |- Goal (G4, Overinfusion is mitigated under Flow rate does not match the programmed rate)

| | | |- Strategy (S5, Argument over all specs related to Flow rate does not match the programmed rate)

| | | |- Context (C4, All related specs are given by scenario.spec.allInstances())

| | | |- Goal (G5, SR1.1 is appropriate for Flow rate does not match the programmed rate)

| | | |- Strategy (S6, Argument the appropriateness of SR1.1 over properties)

| | | |- Context (C5, Properties are given by spec.property.allInstances())

| | | |- Goal (G6, Flow rate sensor is equipped is appropriate for SR1.1)

| | | |- Strategy (S7, Argument over the source of the Flow rate sensor is equipped definition)

| | | |- Context (C6, Source is given by property.source)

| | | |- Goal (G7, FDA standard is appropriate and trustworthy)

| | | |- Solution (Sn1, FDA standard)

| | | |- Goal (G8, Flow rate sensor is equipped definition is sufficient)

| | | |- Solution (Sn2, Flow rate sensor is equipped)

| |- Goal (G3, Underinfusion is mitigated)

| |- Strategy (S4, Argument over the applied scenarios of Underinfusion)

| |- Context (C3, All related scenarios are given by operational\_hazard)

| |- Goal (G4, Underinfusion is mitigated under Programmed rate too low)

| |- Strategy (S5, Argument over all specs related to Programmed rate too low)

| |- Context (C4, All related specs are given by scenario.spec.allInstances())

| |- Goal (G5, SR1.2 is appropriate for Programmed rate too low)

| |- Strategy (S6, Argument the appropriateness of SR1.2 over properties)

| |- Context (C5, Properties are given by spec.property.allInstances())

| |- Goal (G6, Period (to trigger the underinfusion alarm) is 15 minutes is appropriate for SR1.2)

| |- Strategy (S7, Argument over the source of the Period (to trigger the underinfusion alarm) is 15 minutes definition)

| |- Context (C6, Source is given by property.source)

| |- Goal (G7, Expertise opinion is appropriate and trustworthy)

| |- Solution (Sn1, Expertise opinion)

| |- Goal (G8, Period (to trigger the underinfusion alarm) is 15 minutes definition is sufficient)

| |- Solution (Sn2, Period (to trigger the underinfusion alarm) is 15 minutes)

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