

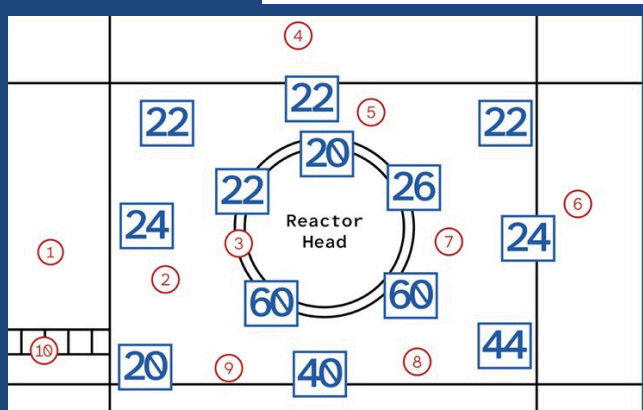


QUICK DECON SOLUTIONS

THE PROOF IS IN THE CLEAN!

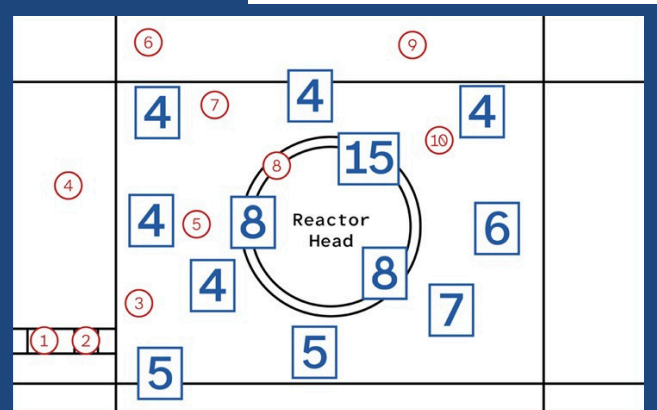
Prairie Island Winter 2023 QDS Reactor Cavity Decon Results

BEFORE QDS™



SAMPLE POINT	SURFACE TYPE (location)	READING (dpm/100 cm ²)	
1	wall	β 1,000,000	α 48.9
2	floor	β 10,000,000	
3	flange	β 4,000,000	
4	wall	β 800,000	α 23.47
5	floor	β 30,000,000	
6	wall	β 800,000	
7	floor	β 12,000,000	
8	floor	β 99,999,999	α 0.0
9	floor	β 30,000,000	
10	wall	β 2,000,000	α 50.3

AFTER QDS™



SAMPLE POINT	SURFACE TYPE (location)	READING (dpm/100 cm ²)	
1	ladder	β/γ 5,000	
2	ladder	β/γ 12,000	
3	floor	β/γ 60,000	α < 20
4	wall	β/γ 7,000	
5	floor	β/γ 15,000	
6	wall	β/γ 10,000	
7	floor	β/γ 80,000	α < 20
8	floor	β/γ 50,000	α < 20
9	wall	β/γ 20,000	
10	floor	β/γ 15,000	

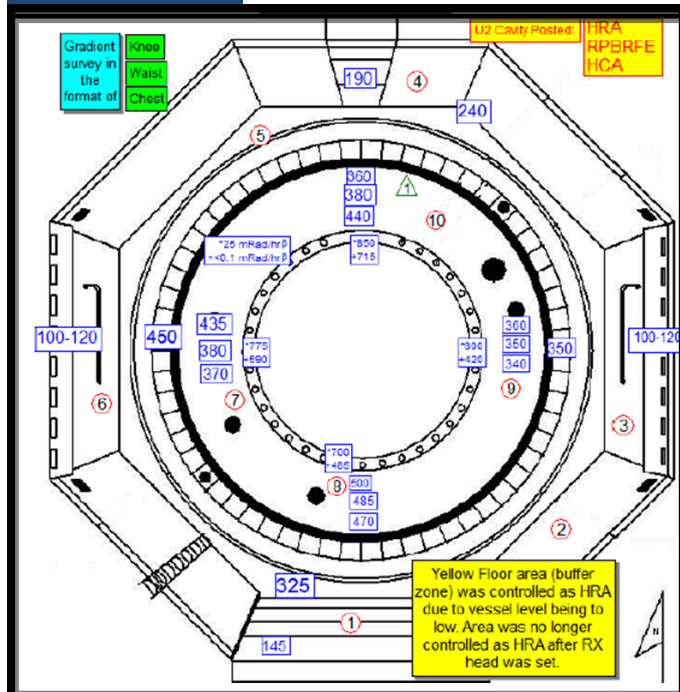
The data shows randomised smear samples taken before decontaminations with QDS™ and after decontamination is completed.
Instruments Used: LUDLUM-177 Frisker, LUDLUM-9-3 ION, LUDLUM-2000 Scaler

KEY IMPACT

- Levels dropped significantly, with most areas measuring between 3K - 25K dpm/100 cm², reflecting reductions of 80-99.9% across nearly all measurement points.
- The highest reduction was observed on the floor and flange areas, where levels decreased from tens of millions of dpm/100 cm² to a few thousand.
- Contamination on walls, floors, and reactor surfaces was reduced by more than 99% in critical areas.
- The overall radioactive dose in the environment was substantially lowered, improving both safety and operational conditions.

Brunswick Spring 2025 QDS Reactor Cavity Decon Results

Before QDS

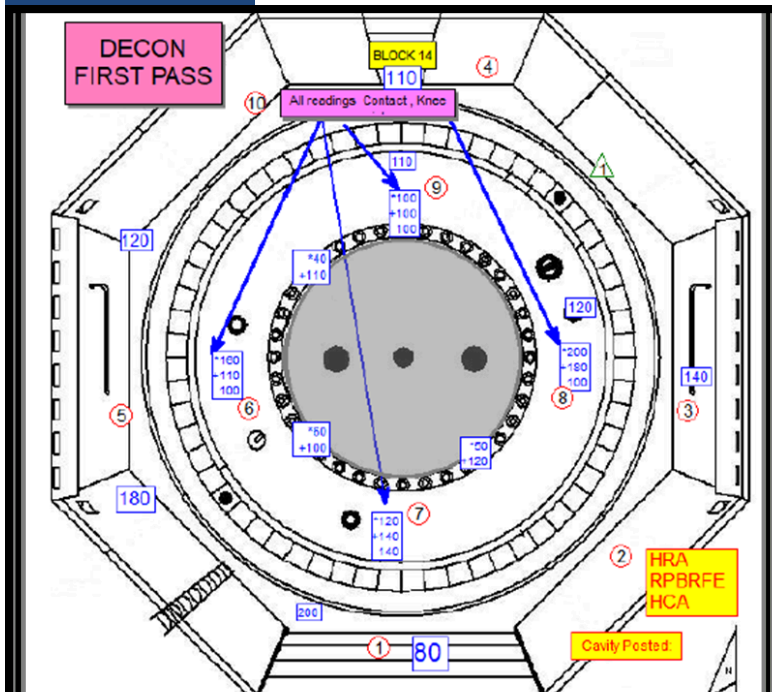


Sample Point

Reading

#	Type	Inst.	Value/mRad
1	Smear	N/A	β/γ 40
2	Smear	N/A	β/γ 8 $\alpha < 20$
3	Smear	N/A	β/γ 16 α 113
4	Smear	N/A	β/γ 10 $\alpha < 20$
5	Smear	N/A	β/γ 400
6	Smear	N/A	β/γ 30
7	Smear	N/A	β/γ 3000
8	Smear	N/A	β/γ 7000
9	Smear	N/A	β/γ 3000
10	Smear	N/A	β/γ 5000

After QDS



Sample Point

Reading

#	Type	Inst.	Value	Units
1	Smear	N/A	β/γ 120K	DPM/100 cm ²
2	Smear	N/A	β/γ 100K	DPM/100 cm ²
3	Smear	N/A	β/γ 60K	DPM/100 cm ²
4	Smear	N/A	β/γ 20	mRad/hr/smear
5	Smear	N/A	β/γ 40K	DPM/100 cm ²
6	Smear	N/A	β/γ 90 α 45	mRad/hr/smear DPM/100 cm ²
7	Smear	N/A	β/γ 40	mRad/hr/smear
8	Smear	N/A	β/γ 450K	DPM/100 cm ²
9	Smear	N/A	β/γ 40 α 15	mRad/hr/smear DPM/100 cm ²
10	Smear	N/A	β/γ 450K	mRad/hr/smear
			β/γ 450K	DPM/100 cm ²

QDS™ "Approved" for use with reactor:

- Duke - Brunswick (BWR)/Oconee
- Constellation - Braidwood
- Holtec - Palisades
- Palo Verde - 1-3
- PSEG - Hope Creek (BWR)
- Xcel - Prairie Island
- Vistra - South Texas Project (temporary limited approval)

Approved and "Deployed" for cavity decon (All reported Critical Path savings, successful cavity decon results (DF), and Dose savings):

- Duke - Brunswick (BWR)/Oconee
- Constellation - Braidwood
- Holtec - Palisades
- Palo Verde - 1-3
- PSEG - Hope Creek (BWR)
- Xcel - Prairie Island
- Vistra - South Texas Project (temporary limited approval)

Additional sites "Submitted" for Chemistry Approval:

- Energy Northwest - Columbia Station (BWR)
- Constellation - LaSalle (BWR)/Dresden
- Southern Nuclear - Farley/Vogtle 1-4/Hatch (BWR)
- ESJ - Three Mile Island Unit 2 (PWR)
- Crane Clean Energy Center - Three Mile Island Unit 1 (PWR)
- UAE/ENEC - Barakah Units 1-4 (PWR)
- CFE - Laguna Verde (BWR)



Scan for QDS Info

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