



Interoffice Communication

To : P. E. Markey
From : M. P. Blackwell
Date : June 10, 1982
Subject : NEW UNIT RVCN CONDENSER VCM RELEASE

At approximately 10:45 a.m. on the morning of June 10, 1982, chief operator Steve Kilgore was checking out lines for a maintenance permit in the new reactor unit recovery area when he noticed a persistent liquid leak from the south side of the second recovery deck. He saw water falling from the top deck but not collecting and making a mess. Upon looking for the source, he saw the relief valve lines for both new unit recovered VCM (RVCN) condensers iced up, and saw liquid spraying out of the weep-holes on the lines. The leaks were not constant, but would spray out a small amount periodically, about every 15 seconds, according to Kilgore. He said that liquid was coming from the weep-holes on both lines but more was coming out of the east line and it had more ice on it.

Kilgore radioed new unit lead operator David Sprowell and told him that VCM was coming of the RVCN condenser relief valves on the second recovery deck. Kilgore asked if there were any VCM readings showing on the Honeywell monitors, and Sprowell reported that there were no readings because maintenance was working on the Honeywell unit. (It was shutdown at 9:00 a.m.). Kilgore told Sprowell to notify shift supervisor Alton Reeves, and said that he would clear maintenance personnel from the unit and stop traffic around the unit. Sprowell promptly notified Reeves who was in the control room, then immediately shut the recovery valves on 742 reactor, which had begun recovery at 9:55 a.m. Sprowell also checked control room levels and pressures for indications of what could cause high recovery system pressure. He was running two recovery compressors, had an 18 psig pressure on 742 reactor, had a 10% level in the west RVCN receiver, an 18% level in the east RVCN receiver, and 60 psig pressure on the old unit recovered receivers.

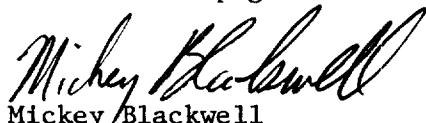
Reeves met Kilgore in the new unit a few minutes later. Kilgore pointed out the source of the leak, but Reeves said that at that time he saw no liquid or vapor coming out. Reeves went to the guard gate to get a key to unlock the valves below the rupture disks so that the leak could be stopped. Meanwhile, Kilgore directed "A" operators Walter West and Charles Morris to stop traffic around the unit. Kilgore said that the leak was still periodically leaking the same as when he first saw it. He put on a Scott Air Pack so that he could isolate the leak. He then radioed Sprowell to shut down the recovery system per Vinyl Operations Engineer Mickey Blackwell's instructions, who had arrived at the scene. The recovery system compressors were shut down at about 11:00 a.m. and the periodic releases stopped.

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Reeves checked out the rupture disc key at 10:58 a.m. and brought it to the unit, where Kilgore went up to isolate the relief valves. When he shut off the valves, he said that both lines were iced up, the east one much more than the west one. Reeves put on a Scott Air Pack and went to the site. He noticed the condenser inlet pressure was approximately 65-70 psig and that the east RVCM condenser relief valve discharge line was iced up.

Walter West saw liquid running out of the weep-hole on the east RVCM condenser relief valve, not continuously. The liquid may have been water or VCM and was milky looking, and Blackwell saw the same thing. Morris saw the elbow on the pipe iced up but never saw anything come out. Co-op engineer Wayne Myers brought two HNU hydrocarbon analyzers to the scene which picked up no readings in the area or down-wind of the release shortly after the recovery system was shutdown, showing that less than 1 ppm of VCM was present. There were also no VCM readings on the second recovery deck according to an HNU carried to the scene about five minutes after the relief valves were blocked in. The deluge system did not go off despite the presence of two general monitors in the area which sets off the deluge system at $\frac{1}{2}$ the lower explosive limit. Kilgore said that he and the maintenance men initially in the area were upwind of the leak and were not exposed to VCM. The recovery system was shutdown until corrective action was taken to prevent further VCM releases. Action steps are outlined on the attached page.


Mickey Blackwell
Vinyl Operations Engineer

Alton Reeves
Shift Supervisor

tap

Attachment

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SHORT TERM ACTION STEPS

1. Drained seal water separators and knockout tanks to the blowdown tank to prevent overfilling the recovery system while it was down.
2. Isolated the condensers and flushed water to the receivers to check for pluggage.
3. Stopped charging reactors in new unit.
4. Control reactors that were running by "bumping" if needed.
5. Cut back on lip seal and sprayhead flushes to prevent filling the reactors that contained unstripped slurry.
6. Pull recovery system lines to inspect for pluggage.
7. Checked rupture disks on knockout tanks, separators, and receivers to see if they were blown.
8. Checked stroke on recovery pressure control valve to make sure it only opened a maximum of halfway.
9. Maintenance steps included:
 - a. Pull and inspect recovery line from condensers to receivers.
 - b. Replace safety discs on condensers.
 - c. Check relief valve relieving pressures.
 - d. Check for inert vent line pluggage.
 - e. Clean level gauges on receivers.